DECEMBER, 1927
MONTHLY No. 263

HITCHCOCK'S MACHINE TOOL BLUE BOOK

DIRECT MAIL ADVERTISING

to

Industrial Machine Shops
Automotive Plants
Railway Mechanical and
Purchasing Departments

AND ALL OTHER
MACHINE TOOL
USERS

Controlled Circulation
25,000 Monthly

Published By
HITCHCOCK PUBLISHING CO.
508 So. DEARBORN ST.
CHICAGO

MOTORS
~weaned from the oil can!

It is not necessary for an attendant to be constantly toting oil to satisfy the lubrication demands of this motor. A little grease once a year is all that Reliance Ball-bearing Motors require. The grease is easily put where it belongs and can be kept there fully protected from dirt. This brings more savings by stopping careless oil squirting and oil-soaked windings.

More reasons why Reliance Ball-bearing Induction Motors will operate at a lower cost for maintenance are given in Bulletin 101.

Reliance Electric & Engineering Co.
1050 Ivanhoe Road, Cleveland, Ohio

Branches: Boston; New York; Philadelphia; Pittsburgh; Cincinnati; Detroit; Buffalo; Chicago; Birmingham

RELIANCE AC DC MOTORS
with Ball Bearings

ECONOMY

Is Wise Expenditure

Isn't it good salesmanship, especially at this time, to make contact at least once a month with every possible buyer of your product?

Can your advertising reach them all, even approximately, by any other method than that of "controlled" circulation?

Do you know that the 25,000 controlled circulation of the Blue Book is thousands greater than that of any other publication advertising machine tools and shop equipment?

Do you know that this 25,000 circulation is specialized wholly in the interest of the advertiser, thus combining quality with quantity?

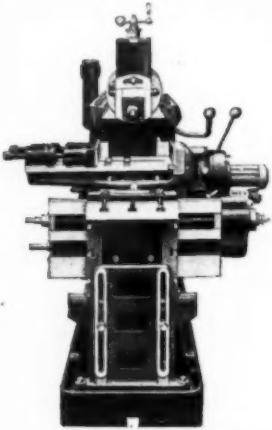
Do you know that its advertising rate is much lower per thousand of circulation than that of any other machine tool publication, thus adding low cost to quality and quantity—an unequalled combination?

If you make anything, big or little, which goes into the machine shop—that is the only criterion—to advertise it monthly in the Blue Book should prove a "wise expenditure," and therefore an

ECONOMY

Rates upon application to Hitchcock Publishing Co., 508 So. Dearborn St., Chicago

New "American" Auto-Oiled Shaper



12 Points of Superiority

Tremendous Cutting Power
Unparalleled Rigidity
Permanent Accuracy
Automatic Forced Lubrication
Multiple Splined Shafts
Timken Roller Bearings
Multiple Disc Clutch and Brake
Helical Gears—Alloy Steel (Hardened)
"V"-Type Ram
Improved Table Support
Tu-Piece Ball Wheel
Centralized Control

Meets Today's Demands

Industry is speeding up all along the line—higher cutting speed—greater perfection of automatic machinery—stabilizing of production—simplification—etc. "American" designs have kept abreast of this tempo. The New American "Auto-Oiled" Shaper has every convenience to speed up the natural working pace of the operator. Modern in every particular, it will perform all classes of its work at the highest speeds and coarsest feeds practicable, producing at the same time a finished product of dependable accuracy. Forward-looking design and positive, foolproof lubrication insure a long accurate operating life with the minimum of depreciation.

Write for illustrated booklet and see how Shaper design has been revolutionized in the New American "Auto-Oiled" Shaper.

The American Tool Works Company

Cincinnati, Ohio, U. S. A.

LATHES RADIALS SHAPERS

HISEY

Universal Portable Grinder

IT'S NEW

Operates from Lamp Socket.
Light in weight.
Powerful HISEY Motor.
Two Pole HISEY Switch.
Ball and Roller Bearing throughout.
Completely enclosed.
Carries 5x¾ inch wheel.

Will operate on Alternating or Direct Current of the same Voltage. The famous HISEY "Single Purpose" Universal Motor with ball bearing mounting is standard equipment. This sturdy little grinder like all HISEY products is designed for continuous service where dependable performance is required.

For operation on Alternating or Direct Current only made in

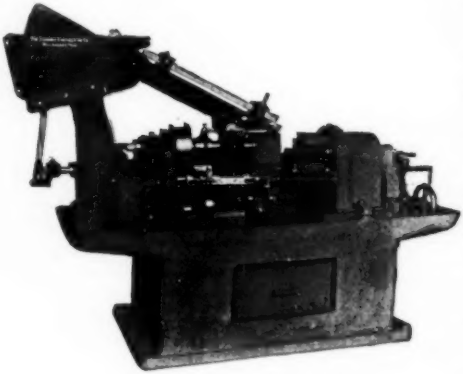
¼ H. P. with 5x½ inch wheel.
½ H. P. with 6x1¼ inch wheel.
1 H. P. with 8x1½ inch wheel.
3 H. P. with 14x2 inch wheel.

Write for Catalog No. 35-H

The Hisey-Wolf Machine Co.

Electric Drills, Grinders, Buffers

New York Office 50 Church St., **CINCINNATI, OHIO**



Economy Automatic Combined
Pointing and Threading Machines

REDUCE
BOLT COSTS

THE ECONOMY ENGINEERING

WHY ?

1st—One Man Runs Four Machines.

2nd—Machines Full Automatic—Eliminates Human Element.

3rd—Pointing Operation Free.

4th—Saves Handling From Pointer to Threader.

RESULT

Increased Profit for Manufacturer

COMPANY, - Willoughby, Ohio

Simonds Saw and Steel Co.

1350 Columbia Road
Boston, Mass.

127 So. Green St.
Chicago, Ill.

109 Lafayette St.
New York City

239 Court Avenue
Memphis, Tenn.

635 Mt. Elliott Ave.
Detroit, Mich.

420 Canal Street
New Orleans, La.

1934 First Ave., South
Seattle, Wash.

85 First Street
Portland, Ore.

228 First Street
San Francisco, Cal.

416 East Third St.
Los Angeles, Cal.

130 Forsyth St., S. W.
Atlanta, Ga.

TO cut metal faster and at the same time save money on your Hack Saw Blades, get the

SIMONDS

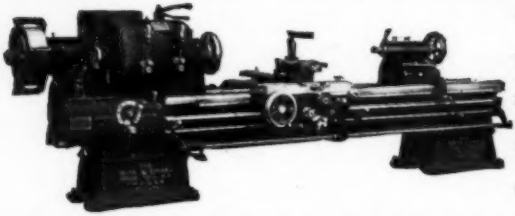
High Tungsten Steel Hack Saw Blades

They stand up longer and do not shell teeth. They are made of high grade steel from virgin ore with a high tungsten content. This composition gives them the foundation to withstand the steady wear resulting from hard metal-cutting jobs.

Send for a free copy of "Hacksawology," which is full of useful hints about using Hack Saw Blades.

Address nearest Simonds Service Station

Easy to Handle



Boye & Emmes 24" Engine Lathe, "CONELESS"
[TRADE MARK REG.]

Any pitch shown on index plate is instantly obtained without removing gears. Clutch acts instantly, without injury to machine or waving belt, due to construction of clutch spool hub which is tapered to fit bearing in pulley hood and used as brake. All controls are large and within easy reach of operator. Positive action of control levers enables the operator to work freely and easily without danger of breaking anything. Gear box entirely dust proof.

"The Lathe with a Longer Life"

Of ultra-modern design throughout, and embodying a number of exclusive features, this lathe makes possible all-around economy, accuracy and greater QUALITY production.

Send for bulletin giving full particulars

SELLING AGENTS:

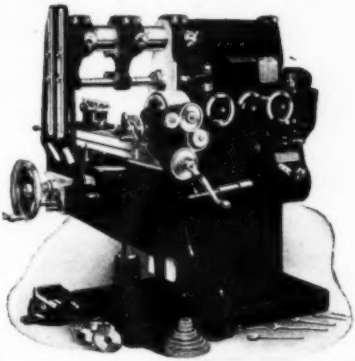
The Strong-Carlisle & Hammond Co.
1392 W. 3rd St., Cleveland, O. 1300 Fort St. W., Detroit, Mich.

Niles-Bement-Pond Company
New York, 111 Broadway; Birmingham, 28 So. 20th St.; Boston, 75 Batterymarch St.; Chicago, 564 W. Monroe St.; Cincinnati, 338 West Fourth St.; Los Angeles, 454 East Third St.; Philadelphia, 2415 Chestnut St.; Pittsburgh, 1115 Empire Bldg.; Rochester, 89 East Av.; St. Louis, 1909 Washington Ave.; San Francisco, 917 Howard St.

The Boye & Emmes Machine Tool Co.,

2245 Spring Grove Ave., Cincinnati, Ohio

LeBLOND Heavy Duty Geared Milling Machines



LeBlond Heavy Duty Single Pulley Drive Geared Milling Machines are simple, rugged, accurate machines best suited for the work of average shops. They are particularly adapted to tool room work and the work of jobbing or repair shops.

The one piece column, the box type knee, the exceptionally large overarm, and the self aligning arbor supports are a few of the distinctive features of these machines.

They are built in a complete line of sizes, in both plain and universal styles, and can be furnished with motor drive. Our catalogue, which gives complete description, will be sent to interested parties.

THE R. K. LeBLOND MACHINE TOOL COMPANY

CINCINNATI, OHIO

NOW every drafting room, no matter how small, may enjoy the advantage of making perfect blue-prints on a moment's notice, any time of the day or night – regardless of weather conditions. And too, the cost of producing those prints will be very low.

PEASE CHICAGO

THE Pease "Junior" Blue-Printing Equipment can be installed in a corner of your drafting room and will turn out perfect blue-prints in any size up to 24x36" in from 1 to 1½ minutes.

No special electrical connections are required. The machine can be connected directly into the lighting circuit on 110 volt current, and will operate noiselessly on either 110 or 220 volts A. C. or D. C. Both the Printing Machine and Sheet Washer require only a small amount of floor space and together provide a handy, economical method for printing, washing, and drying blue-prints, dispensing with old unreliable make-shift or sun frame methods, open trays of water, dripping prints and wet floors.

The Pease "Junior" requires only a small initial investment and upkeep and maintenance expenses are surprisingly low.

Ask for Catalog MJ-65 and "Instructions for Making Blueprints."

THE C. F. PEASE COMPANY
865 North Franklin Street,
Chicago, Illinois

An Inexpensive Electric Blueprinting Machine for the Moderate User Of Blue-Prints!

Get the facts about the Pease "Junior" Blue-Printing Equipment and its application in reducing your blue-print costs.

The C. F. Pease Company,
865 North Franklin Street,
Chicago, Illinois.

Gentlemen:

Kindly send me a copy of your 100-page Blue-Printing Machinery Catalog MJ-65 featuring the Pease "Junior" Blue-Printing Equipment.

NAME .....

ADDRESS .....

CITY ..... **STATE** .....

Designed for High Speed Work

C-O 14-inch High-Speed Sliding Head Sensitive Drill

3,400 to 10,000 R. P. M.

More Holes per Hour!

Total height, 41".
Vertical adjustment of head, 7½".
Diameter of spindle, ⅝".
Travel of spindle, 3¼".
Maximum distance of bottom of chuck to base table, 10½".
Size of base table, 9½"x12½".

Speed of spindle, 3,400-5600-10,000.
Largest size of drill, 5/16".
Distance from column to center of sp. 7¼".
Size of sp. pulley, 1½"-2¼-3"x1¼" face.
Bench space, 15"x20".
Net weight, 180 pounds.
Crated weight, 220 pounds.

Complete Information gladly furnished

Canedy-Otto Manufacturing Company

Main Offices and Factory—Chicago Heights, Illinois

New York Branch
407 Broome St.

Complete stock carried at branches

San Francisco Branch
955 Folsom St.

The Improved Canedy-Otto No. 29

3 Spindle Speeds
720-1430-3000 R. P. M.

Completely Motorized—Also Furnished Belt Driven

The Improved Canedy-Otto Sensitive Bench Drill comes complete with toggle switch, cord, socket, 1½" endless leather belt, and chuck. The motor is adjusted on a sliding base that maintains the proper tension on the belt at all times, and cuts lost motion and vibration to the minimum. Now equipped with a 3-step cone pulley which gives three spindle speeds of 720, 1430 and 3000 R. P. M. Complete information, with close price, upon request.

Canedy-Otto Manufacturing Company

Main Offices and Factory—Chicago Heights, Illinois

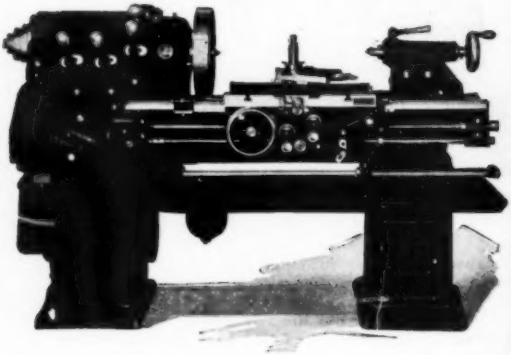
New York Branch
407 Broome St.

Complete stock carried at branches

San Francisco Branch
955 Folsom St.

The Monarch Ball Bearing Helical Geared Head Lathe

Silent—Smooth—Powerful



Three and one-half teeth of the oil-hardened helical gears are always in mesh.

There is a noiseless, smooth, constant transmission of power, with higher spindle speeds than are possible through any system of spur gearing.

The result is greater production.

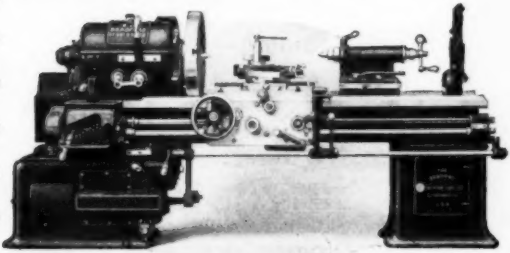
Write for complete description of Monarch Helical Geared Head Lathes from 14 to 30 in., with 5 ft. to 30 ft. beds. The folder describes many other modern features, including unusual ease of operation.

The Monarch Machine Tool Co.

Sidney, Ohio, U. S. A.

BRADFORD "All-Geared" LATHES

Give Users the Edge on Costs



Have Tremendous Power

Because of their construction, Bradfords have tremendous power, yet are practically vibrationless even when pushed to the limit. Tooth and chatter marks are absent. Every strain tendency in the head is ***downward,*** drive is from beneath, tool thrust locks the head tighter to the bed. Gears in the head are large and slow moving—the strain and wear of small high speed gears is eliminated.

Bradford Unit Type Drilling and Tapping Head

A self contained motor driven unit designed for one or more heads to be built into one unit at any angle from horizontal to vertical position.

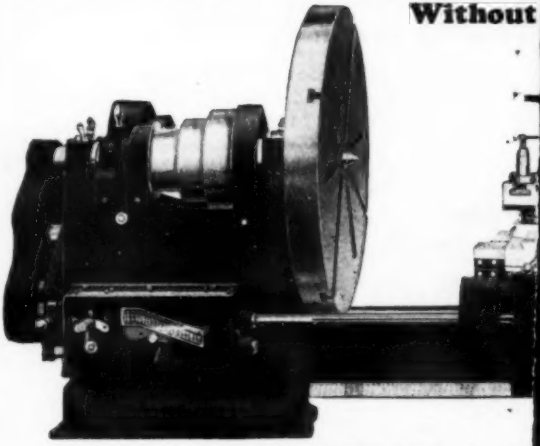
The Bradford Machine Tool Co.

Cincinnati, Ohio

AGENTS WANTED

The LATHE for

Without



Rahn-Larmon 28/50"x12' Series G

There is really no limit within reason to the work that can be done on RAHN-LARMON 3-in-1 Extension Bed Gap Lathes. The 3-in-1 feature makes possible the handling of large or small work with equal efficiency; the variance of the distance between centers enables the operator to take work without the trouble and time of tearing down the job—consequently this Lathe is busy on all types of work at all times. It can effect a material saving in investment, operating and labor costs. If you are not using this lathe in your shop, it will pay you to investigate.

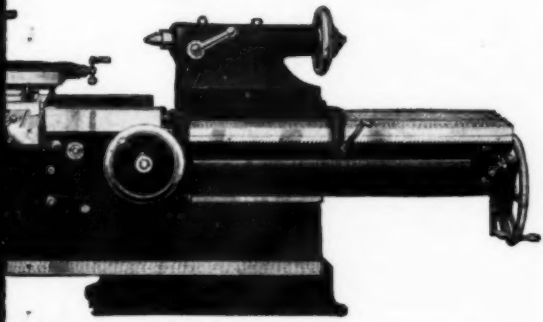
Our Years of Experience are at Your Disposal

The Rahn-Larmon Company

Almost Any Job

Tearing Down or Setting Up

Takes Between Centers:
Gap Closed, 7 ft.; Gap Open, 11 ft.
Width of Gap. 4 ft. 6 in.



Extension Bed Gap Lathe

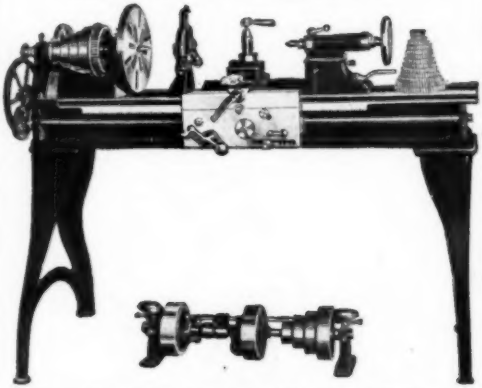
Users of RAHN-LARMON Lathes:

Railroads
Coal Mines
Steel Mills
Shipbuilders
Locomotive Plants
Foundries
Public Service Corporations
Machine Works
Lumber Companies.
Gear Manufacturers
Gas & Electric Companies
Valve Manufacturers
Motor Manufacturers
Fabricating Works
And Many Others

Write Today for Complete Information

:: :: :: **Cincinnati, Ohio**

BARNES LATHES



For Foot Power or Power Drive

9 inch Swing
11 inch Swing
13 inch Swing

For Power Drive Only

18 inch Swing

We are offering these standard high class lathes at

EXCEPTIONALLY LOW PRICES

Write for complete catalogue

ESTABLISHED 1872

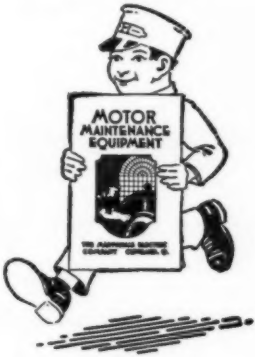
W. F. and John Barnes Co.

ROCKFORD, ILLINOIS

..The..
House of Martindale

Wishes You a

Happy New Year!



The Martindale Electric Co.
Cleveland, Ohio

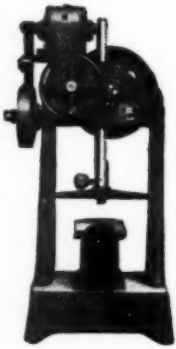
MARTINDALE MOTOR Maintenance EQUIPMENT

KEEN COMPETITION DEMANDS EFFICIENT MACHINE TOOLS

Replace the sledge hammer for drive fit work.

It cannot compete with the

Lucas Power Forcing Press



The BELT does the work and SAVES the workman's TIME and ENERGY for better use.

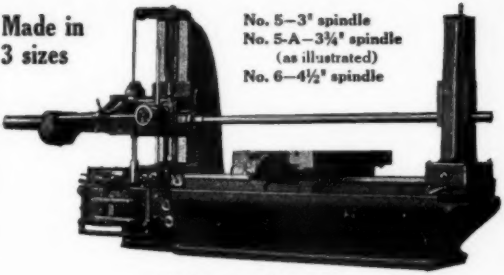
We also make the
LUCAS "PRECISION"
Horizontal Boring, Drilling and Milling Machine

The Lucas Machine Tool Co.

521 East 99th Street, Cleveland, Ohio

Wide Range and Efficiency

Made in 3 sizes



No. 5—3" spindle
No. 5-A—3¾" spindle (as illustrated)
No. 6—4½" spindle

Defiance No. 5-A
Horizontal Boring, Milling, Drilling, and Tapping Machine

In designing these machines, range and efficiency were both considered, both provided for. Simplicity, great strength and ample power secure the operating conveniences necessary to handle the wide range of work with efficiency and profit.

Four in One—And All Efficient!

Boring, Milling, Drilling and Tapping to meet every requirement of machine tool users where intensive production and precision work is a factor of importance. Objectionable features, such as complication and inaccessibility, have been carefully guarded against. The speed mechanism, feed mechanism and contents of the spindle housing are of unit construction, and each unit affords full access without disturbing parts of other units.

Write for the descriptive folder, or for the complete Catalog of "The Defiance Line" of Cylinder Boring Machines, Heavy Service Drilling Machines, Rail Drills, Horizontal and Vertical Multiple Drilling Machines, Multiple Tapping Machines and Valve Grinding Machines.

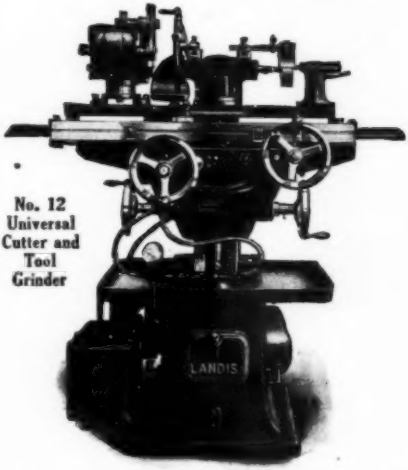
The Defiance Machine Works
Defiance, Ohio

Designers and Builders of Precision-Production Machine Tools and Special Woodworking Machinery

Self-Contained

Cutter and Tool Grinders

With hydraulic table traverse



No. 12 Universal Cutter and Tool Grinder

Available either as a plain or universal machine. Will take care of any kind of cutter and tool work as well as light cylindrical grinding.

Superior finish results from use of hydraulic table traverse.

LANDIS TOOL COMPANY

Waynesboro, Pa.

New York Office: 2907 Singer Bldg. Detroit Office: 5928 Second Blvd.
Chicago Office: 618 W. Washington Blvd.
Philadelphia Office: 5143 Spruce St.

Something No Workman Can Do

It requires the precision of a special machine

The

Grand Rapids Tap Grinder

Grinds taps so that every flute has *exactly* the same angle of taper with just the proper clearance.

This is something no workman can do in grinding by hand.

It saves taps, saves time and insures perfectly tapped holes.

SAVES TAPS. It saves approximately one-half in the cost of taps. It saves the wear of too frequent grinding, because the taps stay sharp twice as long.

SAVES TIME. It saves half the grinding time. It saves tapping time, because the taps cut at higher speeds. It saves assembling time, because nuts, studs, etc., will fit.

INSURES PERFECTLY TAPPED HOLES, because the taps are ground right and with mechanical precision.

Write for the Tap Grinder book.
It tells how to reduce tapping costs while producing more satisfactory work.

Gallmeyer & Livingston Co.

342 Straight Ave., S. W., Grand Rapids, Mich.

Manufacturers of Grand Rapids Drill Grinders, Cutter and Tool Grinders and Tap Grinders. What do you need?

Get
The
Best

It Saves
You
Money

Real, Genuine, Satisfactory Service

starts in the designing:—there is where every little detail is studied with a view to producing a finished machine that will show real results in quality and quantity production.

THE *Avey* BALL BEARING DRILLING MACHINE

Operating Adjustments, Simple, Direct and Positive Power and Speed to suit the job. Extreme Accuracy.

Features that Produce Results

The Avey Drilling Machine Co., Cincinnati

Edlund For Drilling Economy

Edlund Sensitive Spindle Drills are made in styles and sizes to fit varied requirements. Each by its wide range, long service and great accuracy insures economical production.

The 2-B Column Type

shown here is an easy running, sensitive, accurate drill. Equipped by special methods of power transmission—vibration elimination—friction minimizing—and unfailing accuracy to lower the cost of production. Three speed changes can be made in a fraction of a second without stopping machine and special belt shifter allows shifting the belt from either side. Trips so accurately that any number of blind holes may be bored without .004" variation in depth. Full ball-bearing equipment and perfected construction give a smooth, clean cut.

Put Your Drilling Problems up to us

Our years of experience are at your disposal. We shall be only too glad to discuss your problems with you, without any obligation on your part.

Write us today

Edlund Mchy. Co., Inc.

CORTLAND, NEW YORK

Holes by Edlund are low cost holes

It's the SPINDLE in a Drilling Machine That Counts

An Undeniable Fact

Demco is the only spindle on the market that automatically absorbs its own wear. Never has lost motion—requires no adjustment.

Model D—
1 Spindle Floor Type

⅜" to 1⅛" capacities
1 to 6 spindles
8" to 12" overhang
Bench or floor
Belt or Motor Drive

Demco Bradford Automatic Drilling and Tapping Head

No. 1—⅞ capacity
No. 2—1⅛ capacity
Self Contained.
3" Spindle Travel

Demco Drilling Machines

High Speed Sensitive Ball Bearing Drilling Machines

6616 Morgan Ave., Cleveland, O.

FOOTBURT

A Single Spindle Footburt Sipp Sensitive Drill

Made in three sizes of single and multiple spindle models

More holes with this machine

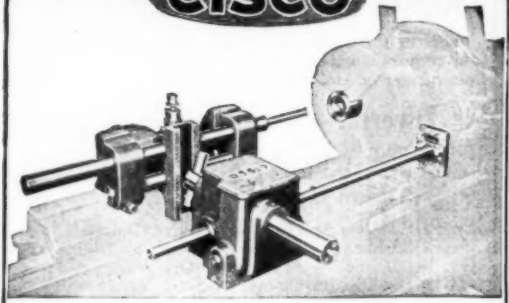
Why? Because you can change speeds in two seconds or belts in ten seconds—because the automatic idlers keep the belt pulling to capacity at all times—because the full ball bearing equipment and accurate machining gives a smooth, fast cut.

Write for No. 650 Folders

The Foote-Burt Company, Cleveland, O.

FOOTBURT

CISCO



Increased Production!

The CISCO UNIVERSAL OIL GROOVING ATTACHMENT will increase your production on oil grooves, and at the same time give you a much better groove.

This attachment will cut single, double, triple. and quadruple figure eight oil grooves, inside or outside the bearing. The figure eight oil goove has been pronounced by engineers as the best type of groove for mechanical purposes.

The depth and width of the oil groove is controlled by the operator. The maximum diameter taken by this attachment is limited only to the swing of the lathe on which the attachment is placed. It is built for three maximum lengths of work, 6", 9" and 12".

Send us samples of your work, we will oil groove them and return them to you with the actual time required to do the job.

The Cisco Machine Tool Co.

1700 Elmore Street, Cincinnati, Ohio

"Artisan" Lathes for REAL SERVICE!

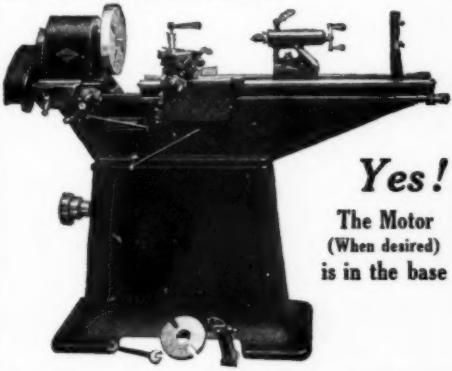
Made in three (3) distinct sizes and styles to meet the requirements of the Machinist, Tool-maker, Experimenter or Instructor.

Powerful—Accurate—Compact

Priced FAR below ANY Lathes on the market of similar size and capacity.

The 11"x5' "MASTER" is shown below:

Swings 11" over the Bed, 16" over the Gap—
Takes 36" between centers, 1 5/16" through Spindle—
Can be supplied with compound or plain rest and with loose or quick-change gears.



Yes!

The Motor
(When desired)
is in the base

The Artisan Manufacturing Company
837 Hathaway Street, Cincinnati, Ohio

Please send complete details of your Lathes

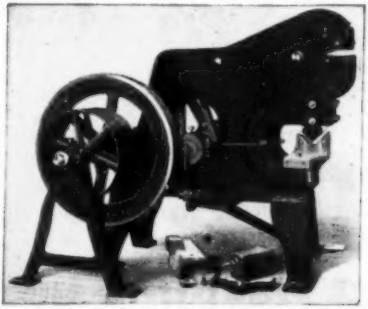
Name .....

Address .....

Punches—Shears—Bending Rolls

The Beloit

Combined Power Punch and Shear



Built in seven sizes. Nos. 51, 52, 53, 54, 55, 55½ and 56

Direct connected motor or belt drive

This is the best all around punch and shear in a combined machine of moderate cost. It is heavy and substantial, and amply back geared to require the minimum amount of power; is strong, compact, and easy to operate. Can be equipped with angle shearing attachment, architectural jaw, or for special work.

We make a complete line of punching and shearing machinery in both power and hand tools, also light and heavy duty bending rolls.

We do not overrate the capacity of our machines.

Write for catalog and prices.

Hendley & Whittemore Co.

100 S. State St., Beloit, Wis.

"The Handiest Tool in the Shop"

—

7 in. Shaper Stroke

—

3½ in. Slotter Stroke

2 Machines in 1

RHODES SHAPER AND SLOTTER

Both A-1 Producers

The Rhodes Combination 7" Horizontal Shaper and 3½" Vertical Slotter—two machines in one—is a paying investment from the start. A few turns of a wrench converts the Rhodes into either an efficient shaper or a fast, accurate slotter.

It will do keyseating, shaping, slotting, die making and intricate work of many kinds ***with only one set-up of the work***, and, within its range, will exceed the capacities of larger and more expensive single operation machines. The costs of maintenance and operation, of course, are substantially less. It will pay you to investigate.

Ask your dealer or write for CATALOG H22

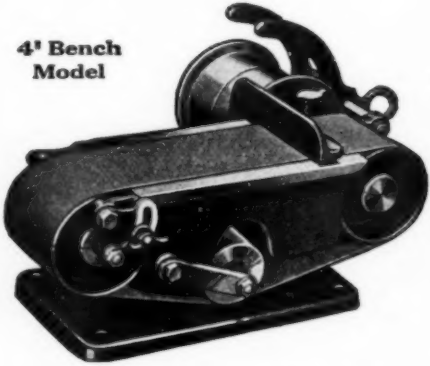
The Rhodes Mfg. Company

944 Park Road, -:- Hartford, Conn.

SHAPERS—RHODES—SLOTTERS

PEERLESS
SURFACING MACHINES
for
Grinding and Finishing
Flat Work

4' Bench Model



Larger Machines in Both Horizontal and Vertical Styles

SEND FOR FOLDER

PEERLESS SURFACING MACHINE CO., Inc.
TROY, N. Y.

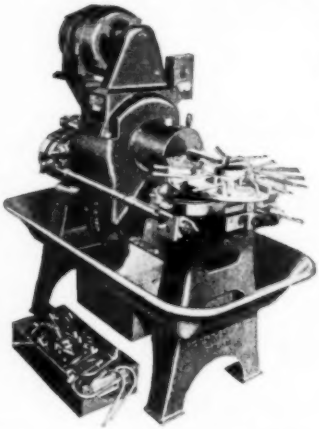
Townsend Disc Grinders

18"	$250.00
24"	325.00

Charlestown Machine Co.

67 Walnut St., Fitchburg, Mass.

"Thread It Separately"



That's the Modern Way Up-to-Date Plants are Saving Money

The Machine to Use? The

Rickert-Shafer Automatic Single-Purpose Threading Machine

Production time on automatics is always governed by the time of the longest operation—threading. To get more out of expensive automatics the trend in modern plants is to do the threading on low-priced single machines. To cover this field we have designed a full line of Rickert-Shafer Threading and Second Operation Machines, made in single and double spindles—magazine, hopper or hand feed. Adaptable to almost every job of threading, from the simplest to the most complicated. Combination tools can be supplied so that chamfering, reaming, facing, etc., can be done simultaneously with the threading and with but one chucking.

Send for complete details, or estimates of your work threaded on one of these machines

RICKERT-SHAFER CO., Erie, Penna.

Full Automatic

Pointing, Champfering, and Drilling Machines

with hopper feed

Hoppers

for Centreless Grinders

Threaders—Slotters—
Drillers—
Bar Pointers—

A Symbol of Quality on Any Machine

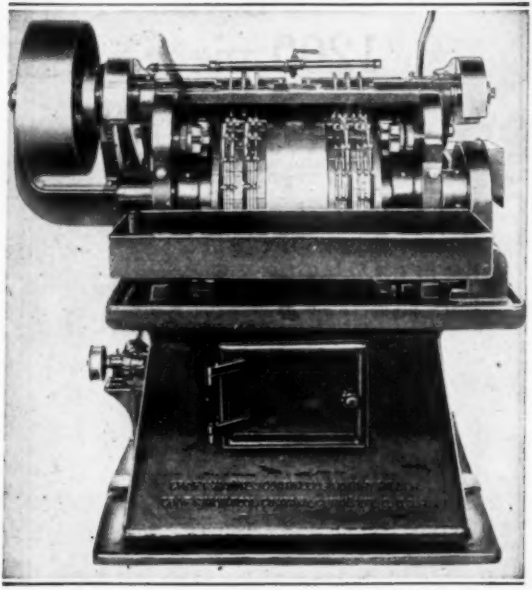
Cap Screw Pointers
and Shavers—Tappers—
Tool Grinders.

The KENT MACHINE COMPANY

CUYAHOGA FALLS, OHIO

The Craftsman Continuous Rotary Miller

Made in Three Sizes—No. 1, No. 2 and No. 3



For Castellating—Screw Slotting—Slab Milling Straddle Milling—Plain Milling, Etc.

Let us have your blue-prints or samples of small parts to be milled, and we will be pleased to submit production rates.

Manufactured by

The Sommer & Adams Company

18511 Euclid Ave., Cleveland, Ohio

Threading 1200 pieces per Hour

These brass wing screws shown are being threaded on our

Standard High Speed Tapping Machine

Let us show you what can be done on your work

Leland-Gifford Company, - Worcester, Mass., U.S.A.

BRANCHES

BOSTON CHICAGO CLEVELAND
DETROIT NEW YORK
PITTSBURGH ROCHESTER

AGENTS

Hendrie & Bohlhoff — Denver
F. E. Satterlee Company — Minneapolis
Colcord-Wright Mchy. & Supply Co. — St. Louis
Herberts Machinery & Supply Co. — Los Angeles, San Francisco
F. F. Barber Machinery Co. — Toronto

LELAND-GIFFORD

Taylor & Fenn Belt Driven

No. 12 Spring Press

UNIFORM BLOW SPRING PRESSES

Are made in three sizes, with either single or double action

Our No. 12 Belt Driven Spring Press, illustrated above, has a stroke of 3¼ inches. The foot treadle operates a safety clutch attached to the flywheel, which automatically stops the machnie after each stroke regardless of whether the treadle is released or held down by the operator. The clutch can be adjusted for a continuous stroke if desired.

Descriptive circular gladly sent upon request

The Taylor & Fenn Co.

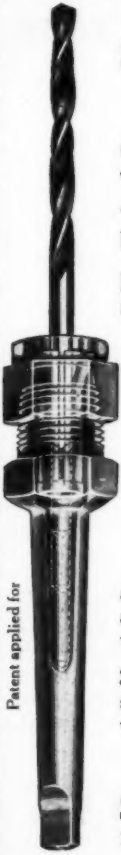
Hartford, Conn., U. S. A.

Use Broken Drills

Save New Drills

in

Save-drill Chucks



Patent applied for

They will hold ***Either End*** of any broken drill long enough to use.

New drills may be ***pushed back into the hollow shank*** with only the amount protruding actually needed for drilling, often increasing your drill's life 300% to 400%.

The chucks are very compact for close multiple or inside drilling. They will turn 5/16" and smaller drills in 1" circle, 5/8" drills in 1-7/32" and 3/4" drills in 1-13/32" circles.

TRY ONE FREE

and if you are not satisfied with your actual savings in a month, return it without obligation.

Specify size of shank and whether straight or tapered and size of collets wanted.

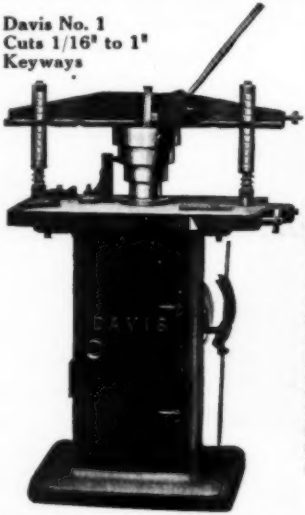
MADE IN ALL SIZES

Sandusky Nut Company

122 Lawrence Street, Sandusky, Ohio

Versatile—

Davis No. 1
Cuts 1/16" to 1"
Keyways



The Davis Key-Seater

equipped to handle any keyseating job in the shop up to 1" wide. If you want a machine to turn out standard parts in quantity—accurately and speedily — the DAVIS will do it. If you want a machine to take care of the average jobs—the DAVIS will do that too. Made in two sizes.

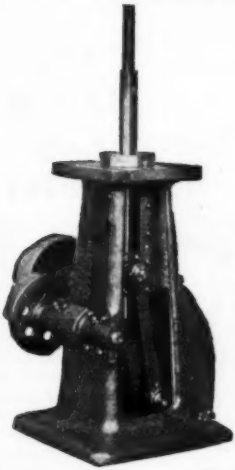
DAVIS KEYSEATERS are wide range, accurate machines with ample power to handle every keyseating job from the smallest to the large gears, pulleys, etc. Capacity in steel keyseats 1/16" to 1" wide (also taper keyways) on hubs up to 12". Davis cutters for Davis Keyseaters in sizes from 1/16" to 1" in 16ths and some 32nds.

Write for complete illustrated description, including interesting table of cutting time

Davis Keyseater Company

255½ Mill St., Rochester, N. Y., U. S. A.

Rapid CATLIN Keyseaters



Supreme in
Speed
Capacity
Simplicity

WHETHER you need one keyseat or a thousand, the Rapid "CATLIN" will cut them to even better than 1000th of an inch accuracy. They are making new shop records right along—helping to speed up production and lower costs.

There is a CATLIN to Suit Your Needs

THE illustration shows our No. 1 Keyseater which has a stroke adjustable to 13" and cuts keyseats from 1/16" to 1½". Belt drive with 3-step cone pulley. Other styles and sizes are made to fit your every requirement. As the Catlin has less than half the number of parts of other keyseaters, the parts can be made extra strong and sturdy without being clumsy.

Used By

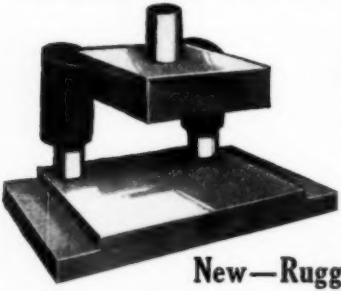
Automobile Plants
Government Shops
Navy Yards
Domestic and Foreign Factories and Machine Shops

Send for Folder giving Shop Records and List of Plants Using the CATLIN

Chattanooga Machinery Company

2401 Bennett Ave., Chattanooga, Tenn.

Insure Your Dies Against Breakage—



Use the U. S. Tool STEEL BASE Sub-Press

New—Rugged—Strong!

STEEL BASE—Larger in area than usual, giving greater strength when the blank hole is cut, greater resistance to strains and buckling. Thinner, lighter in weight, yet immensely stronger than cast-iron base presses.

ABSOLUTE INTERCHANGEABILITY—Any top fits any base, a positive assurance of precision.

HUSKY—Big pillars; extra long bushings hardened and ground.

EXTREMELY SIMPLE—Only three types meet every requirement for a sub-press.

POSITIVE LUBRICATION- A simple and ingenious arrangement provides positive lubrication for pillars.

COST—No more than ordinary cast base sub-presses.

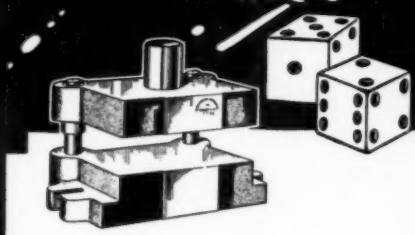
Send for Complete List of Styles and Prices

U. S. Tool Company, Inc.

AMPERE, N. J.

Your Dies

are too important to gamble with



You absolutely eliminate shearing of dies, increase the "pieces per grind" enormously and cut the "depth per grind" to ¼ or ⅙th when you use Danly Standard Leader Pin Die Sets.

You also save 20 to 50% in first cost . . . immediate delivery from nearest warehouse, as easily as writing out a requisition upon your own stock room. They are used and endorsed by almost 4000 makers of stampings.

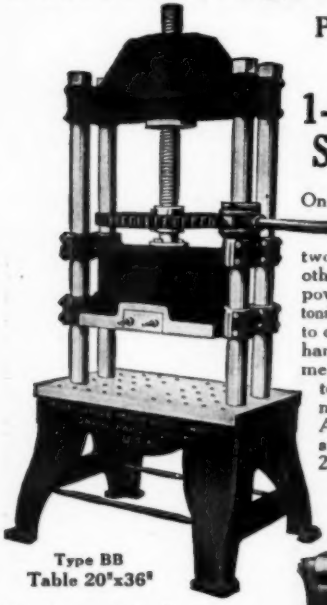
Danly Machine Specialties, Inc.

2116 So. 52nd Ave., Chicago, Ill.

Long Island City, N. Y.
35 Wilbur Ave.

Detroit, Mich.
1537 Temple Ave

Perfect Alignment Of



Type BB
Table 20"x36"

Punch and Die with the

1-Man 4-Post Screw Press

One man can do more, better and speedier work, than two men can do on any other type of press. Rigid, powerful — delivers 80 tons pressure—and simple to operate. Convenient handling—perfect alignment — eliminates any tendency to gouge or nick. Type BB is shown. Also made in three smaller sizes to give 20, 25 and 40 tons pressure.

Write for Folder

Surface Grinder

Has all latest adjustments and attachments. Both feeds have graduated dial. Vibration eliminated —Silent—Powerful—Accurate.

Details and Prices on request

JARECKI MACHINE AND TOOL CO.

Department A

GRAND RAPIDS, MICHIGAN

KRW Hydraulic and Sensitive ARBOR PRESS

Now Sold Direct To User At Greatly Reduced Prices

$115.00 F. O. B. Factory

COMPLETE With All Attachments as shown

The latest improved combination KRW Hydraulic and sensitive Arbor Press incorporates many new improvements, not found in any other Arbor Press, at any price.

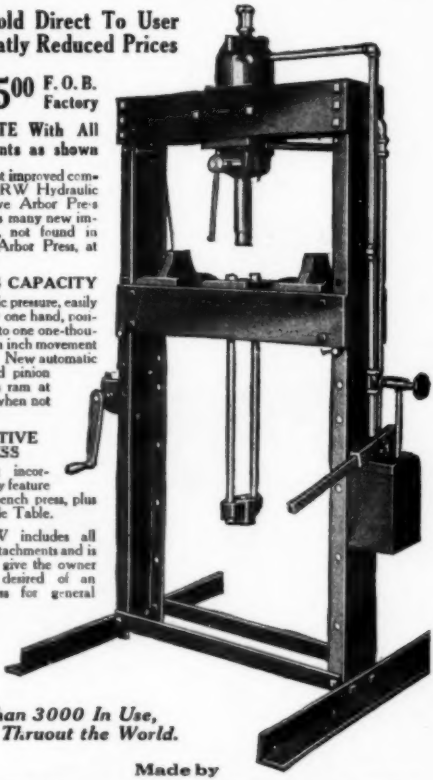
35 TONS CAPACITY

By hydraulic pressure, easily operated by one hand, positive control to one one-thousandth of an inch movement of the ram. New automatic air vent and pinion brake holds ram at any height when not in use.

SENSITIVE PRESS

Attachment incorporates every feature of a 3 ton bench press, plus —Adjustable Table.

The KRW includes all necessary attachments and is designed to give the owner everything desired of an Arbor Press for general garage use.



More Than 3000 In Use, Thruout the World.

Made by

K. R. WILSON, 10-14 Lock St., BUFFALO, N.Y., U.S.A.

SALVAGE

YOUR

Hack Saws

HARD TEMPERED
METAL CUTTING

Band Saws

MILLING, SLITTING AND SCREW SLOTTING SAWS

IT COSTS **2¢** *To Sharpen A Hack Saw* **5¢** *A Band or Circular*

MAIL TO US
two saws and we will resharpen them for you
FREE OF CHARGE

REDUCE YOUR SAW PURCHASES

90%

SAVE TIME AND SAVE MONEY

Write for Catalog

THE WARDWELL MFG. CO.

Makers of automatic machines for sharpening—Hack Saws, Hard Tempered Band Saws, Milling, Slitting and Screw Slotting Saws and all Woodworking Saws

Manufacturers of the largest line of Saw Filers made in U. S. A.

108 Hamilton Ave., Cleveland, Ohio

Strand

New Type Machine
For
Rotary Filing Grinding and Polishing

Type RF-M 4. ¼ H. P.

For
Die Makers
And
All Kinds of Metal Finishing
Of
Various Shapes and Sizes
A Machine—
For
Many Purposes

Attach to the Lighting Circuit

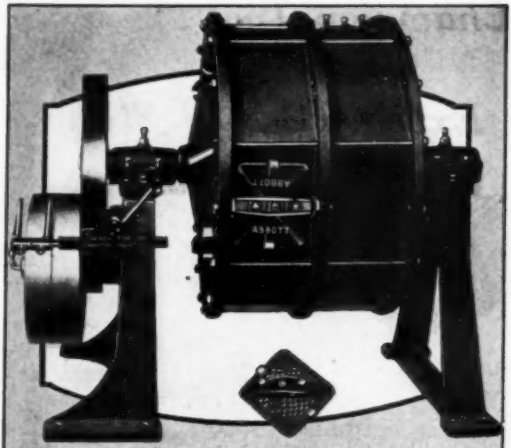
Attachments

EQUIPMENT

Ball Bearing Hand Piece.
8 Assorted Rotary Files.
9 Assorted Grinding Wheels.
1 Rubber Polishing Drum.

Machine Complete as Illustrated

N. A. STRAND & CO.
Manufacturers
5001 No. Lincoln Street
CHICAGO



"Rubbing Under Pressure"

—the principle of hand buffing applied to ball burnishing. That is The Abbott Way.

The results combine thoroughness with machine efficiency.

We can show you how to halve your finishing costs.

Send us samples for a burnishing estimate

THE ABBOTT BALL COMPANY

"Originators of Commercial Ball Burnishing"

1043 New Britain Ave., Hartford, Conn.

Champion Tool Holders
SAVE
Expensive Tool Steel

High Speed Tool Steel is brittle; the more bearing, the less breakage. The under support gives 40 to 70% more bearing for the cutter than any other tool holder. The CHAMPION Holder saves the tool.

Patented

CHAMPION Tool Holders are made of drop-forged steel, thoroughly case-hardened, and are equipped with an unbreakable "Mac-it" set screw.

Patented

Champion Boring Tool

This tool is indispensable for inside threading and boring. Takes any length of cutter, which may be used down to short lengths. Cutters, drills, reamers, taps and many other tools can be used in this Holder.

Let us tell you more about our Turning Tools, Boring Tools, Planer Tools, Cutting-Off Tools, Threading Tools, Grooving Tools and the Champion Drill Holder.

Write for New Catalog and Price List

The Western Tool & Mfg. Co.
Springfield, Ohio

Stop Wasting Time and Money

Use

HYRO
SHUR-GRIP
FILE HANDLES

(Patented July 12, 1921—No. 1,384,154)

They
Screw On and STAY ON

Standardized and Used in Shops where Economy and Efficiency are Practiced.

Carried in stock by Leading Jobbers

HYRO MFG. CO., Inc.
200 Varick St., New York, N. Y,

HYRO
PRODUCTS
"Speed Up Production"

Etchograph

Trade Mark

Patented July 8, 1918
Patent No. 1,269,169

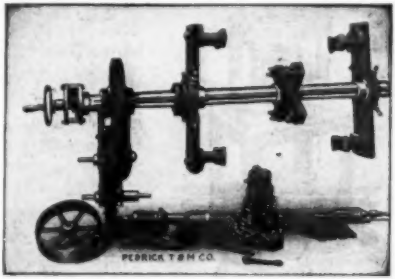
Six Stages of Heat

Enable the user of the ETCHOGRAPH to obtain six variations in the size of marking—an advantage no other machine can offer. Ideal for writing or marking on iron, steel or steelite. No fuss—easy to operate. Just plug in at the nearest lamp socket and write as you would with a pencil. No acids, no elaborate preparations—thereby affording an 80% saving in time alone. Full information gladly sent upon request.

Write for descriptive folder, stating power available.

William Brewster Company
50 Church St., New York

Pedrick Portable Tools



Portable Cylinder Boring Bars

For reboring in position locomotive cylinders and piston valves, cylinders of stationary engines, steam hammers, air compressors, and a wide range of other work. Often it finishes a job before it could be gotten into the shop, saving time, expense and costly delays. Its saving on work that is difficult to move is out of all proportion to its moderate cost.

As for durability, we doubt if you can wear out a Pedrick built bar. Many machines we made 25 years ago are still in use.

We also build Floor Type Boring Machines, Crank Pin Turning Machines, Pipe Benders, Portable Milling Machines, etc.

Write for the Catalog today

Pedrick Tool & Machine Co.

3644 N. Lawrence St., Philadelphia, Pa.

Angle Iron Mitre Notcher No. 60

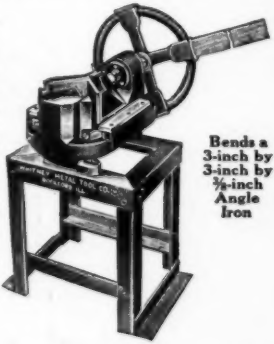
Notches 3-inch by 3-inch by ⅜-inch Angles

BALL BEARING

The No. 60 Angle Iron Mitre Notcher is equipped with Ball Bearing Spindle, Ball Bearing End Thrust, Ratchet Operating Handle, Screw Clamping Device, Inserted Tool Steel Shearing Blades. Punch enters die by means of guide pins. Parts interchangeable.

Angle Iron Bender No. 61 Ball Bearing

This Bender is hand operated, and has a powerful ball bearing screw, creating a pressure on the dies of approximately 60 tons. It will bend a 90 degree shape in 3x3x⅜" angle iron. It will not only bend iron, but by using special jaws will bend Pipes, Flats, and Rounds.

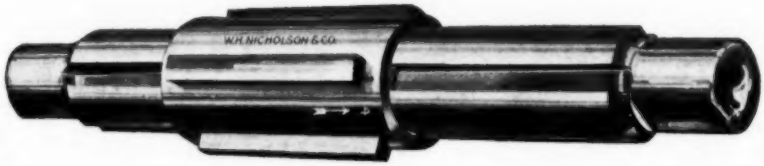


Bends a 3-inch by 3-inch by ⅜-inch Angle Iron

Write for Catalog and Price List on Entire Line

WHITNEY METAL TOOL CO.

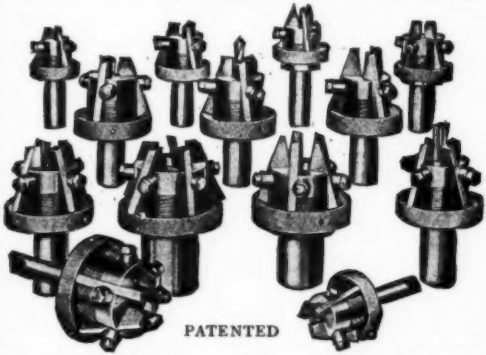
95 Forbes St., Rockford, Ill.



MACHINE Shops can get along without tools like expanding mandrels and high speed drills, but they get out work much faster with them. Write us about mandrels.

W. H. Nicholson & Co., 117 Oregon St., Wilkes-Barre, Pa.

Reduce Finishing Costs on Your Forgings and Castings



Genesee Adjustable Hollow Mills

Require but seven sizes to cover the entire range from ⅛" to 2"—and will machine all sizes within their capacity to 1000ths of an inch. Compare this with the hundreds of solid tools necessary to do the same work and you will readily see the many advantages Genesee Adjustable Hollow Mills have to offer you.

Accurate—Productive—Economical

Accurate because they cannot change in size or clog with chips. Speedy, as they cut up to 15" a minute in steel. Stronger, outlasting from five to seven solid tools. Blades are replaceable at a small cost. Made in six different styles, from the heavy roughing Style "B" to the accurate finishing Style "F." Also made in Style "N" for all Brown & Sharpe automatics, and in special styles and sizes to your order.

Write for complete, detailed information

Genesee Manufacturing Co., Inc.

141 North Water Street, Rochester, N. Y.

Manufacturers of Genesee Rapid Production Tools ***Est. 1908***

"Lehmann Lathes"

TWO STYLES
Three Step Cone and Geared Head
5 SIZES
16/18½, 18/20½, 20/22, 22/24½, 24/27½"

Accurate—Powerful Tools Embodying

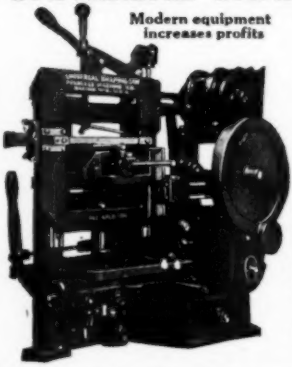
the most modern ideas in design and construction
Their performance is their best endorsement

Ask any user
Catalog on request

LEHMANN MACHINE CO., St. Louis, U. S. A.

—PEERLESS—
UNIVERSAL SHAPING SAW

Modern equipment increases profits



Different Principles
Greater Efficiency
Give The Most Of—
Speed
Accuracy
Blade Economy

SIZES:
6"x6"--9"x9"--13"x13"

PEERLESS
HIGH SPEED HACK-SAWS
6"x6" 9"x9" 13"x16"
Sturdy--Efficient--Reliable

Peerless Machine Co.
1218 Sixteenth St.
Racine, Wisconsin
Write for Details

12 Spindle Speeds—

And other features for modern needs.

C. & J.

15/16-inch Geared Head Motor Driven Lathe

Ask for further details

Carroll & Jamieson Machine Tool Co.

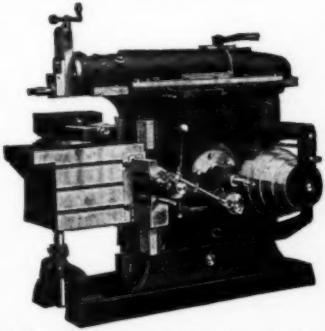
Batavia, Ohio

SHAPERS

12", 14", 16" Plain Crank, 16", 20", 25" B. G. Crank, either Cone Driven or through Speed Box.

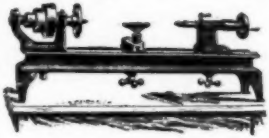
Belt Shifter Regular Equipment All Cone Driven Shapers.

32" Back Geared Crank, Single Pulley Drive.



The Smith & Mills Co., Cincinnati, O., U.S.A.

Bench Speed Lathe



Swing—8"
Length of bed—3'
Distance between centers—20"

Write for Catalog No. H21 and prices

The W. W. Oliver Mfg. Co.
1495 Niagara St., Buffalo, N. Y.

Bar Stock Racks

Steel Column, Adjustable Arms

Can Not Tip Over.

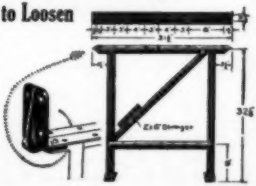
CAPACITY:—All the stee. that you can pile on.

Bench Legs

Steel-Welded—No Rivets to Loosen

Cuts costs in Building and Maintenance of Benches.

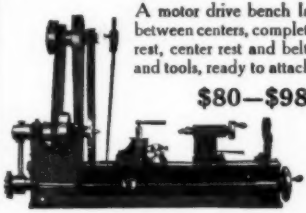
Durable—Rigid—Non-Breakable



Pollard Bros. Mfg. Co.
4038 N. Tripp Ave.
CHICAGO, ILL.

Just-Rite Lathes

Made in Sizes from 10-in. to 20-in.



Has Power Feed

A motor drive bench lathe, 10" swing, 24" between centers, complete with motor, swivel-rest, center rest and belting, including chuck and tools, ready to attach to your light socket.

$80—$98—$125

JUST-RITE for turning, boring, milling and drilling (not screw cutting.)

Order one by express. Weight, 230 lbs.

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The Cataract Line

For Supreme Service—

Because they meet the modern demand for superior accuracy and workmanship—*ask for catalog*

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ALL TYPES:
Spurs, Internals, Bevels, Mitres, Helicals, Spirals, Worms, Worm Gears, Sprockets, Ratchets.

ANY MATERIAL:
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Made in Small and Medium Sizes, all of One Quality—the very best. We also carry a full line of Stock Gears for immediate delivery. ***Write us.***

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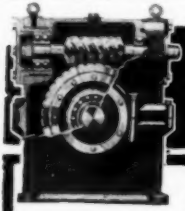

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Speed reducers of every type and size to meet every possible requirement.
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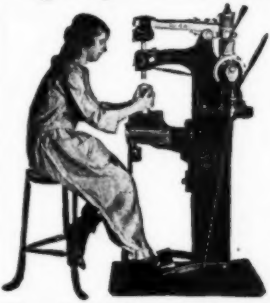

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1/64 to 1½" in diameter

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of Simple, Rugged Construction

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The New RACINE Shear-Cut

Production Saw for High Speed Metal Cutting

Time per cut does not vary. Cutting time reduced half. Life of saw blades tripled.

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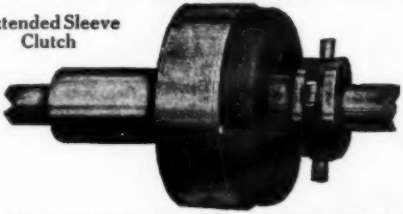
Extended Sleeve Clutch



The "Type B" Friction Clutch is an improved expanding type. It fills the need of an efficient and inexpensive method of driving a large variety of machines.

Furnished in pulleys, extended sleeves and cut-off couplings.

Write us about your clutch troubles. We can solve them.

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Die Making Machines

save an average of 50%

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This ideal is most nearly realized with the improved

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Has no equal for all plain, surface, edge, die, cutter and internal grinding. All Thompsons can now be equipped with the new auxiliary coarse cross feed for surface grinding. Capacity 10"x36".

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A Low Priced Automatic Grinder for Small Milling Cutters

Especially adapted for light metal cutting saws or milling cutters 2½" to 18" in diameter, with teeth as fine as 7 points to the inch.

Automatic in operation—

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Equipped with 3 aloxite redmanal grinding wheels for extra fine grinding.

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The PORTER-CABLE BELT GRINDER is faster than a wheel and leaves a better finish than a disc.

Combined horizontal and vertical models in 6" and 10" belt sizes.

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PROMPT DELIVERIES

We are in position to make prompt deliveries on certain sizes of standard straight side wheels, ranging from

8"x½"—to—30"x6"

at attractive prices

Send us your Inquiries

The Cincinnati Abrasive Wheel Co.

CINCINNATI, O.

"D. & W." DEMAGNETIZERS!

Built in two types for use on alternating and direct current.

Its design is based upon principles of simplicity and durability. The D. & W. is an independent unit requiring no countershaft or belts. Thus equipment and maintenance costs are lowered, and convenience is increased.

INDESTRUCTIBLE D&W MAGNETIC CHUCKS REG. U.S. PAT. OFF.

Are you confronted by any special problems in connection with the use of magnetic chucks? ***We will gladly investigate and report on them, or design special chucks to suit your needs.***

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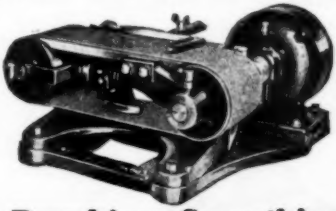
Simplex-M Abrasive Band Grinder



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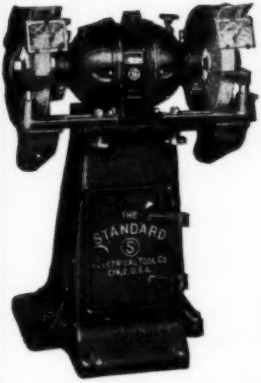

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The Superiority Of

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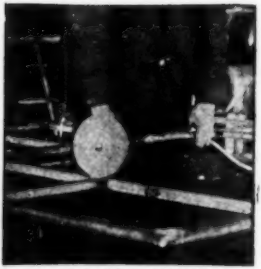

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INSURES

Continuous Service and Satisfaction for MALL users

Write for full information on complete sets or replacements

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Makers of the Largest Assortment of Flexible Shaft Machines and Attachments

For Sure Balance--

an absolutely level and solid "Way" is necessary

Bowsher "Balancing Ways"

are brought to an absolute *level* in ten seconds. No revolving parts.

The edges or "knives" upon which the work is tested are ground *true*, and are mounted upon the planed "ways" of a heavy bed or frame.

Standards adjustable to suit length of arbor.

Three sizes for floor—one for bench use

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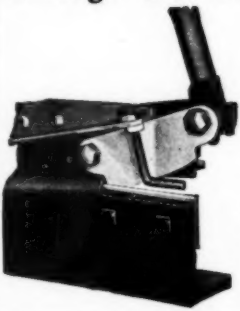
Chicago Steel Slitting Shear



Light—Powerful Durable

Capacity 10 gauge Sheets Any Length or Width

Flat Bars 3/16 x2 in. Weight 22 Lbs.

Price $12.50 Net

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Made by the makers of Chicago Steel Bending Brakes, Hand and Power, Over 25,000 in Use.

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The light that didn't fail —

was shining right down on the job for it was easy to bring it there by means of an "AUTEX" swivel jointed extension reel.

It surely saves time and speeds up the work in Machine Shops, Service Stations and Industrial Plants of every size. Soon pays for itself.

Approved by the Underwriters

Now equipped with Belden Rubber Cord

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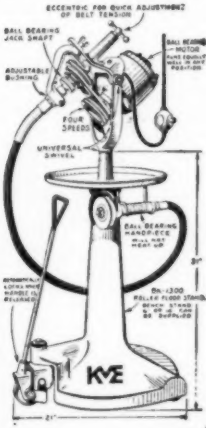

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"The Machine of a Hundred Uses"

¼ — ⅓ — ½ — H. P.
SPEEDS UP TO 10,500

Non-Heating Shafts
Ball Bearing Handpieces

FILING— GRINDING—
POLISHING—DRILLING—
ETC.

Tell us your problems

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58A Washington St., Brooklyn, N. Y.

(See Page 74)

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4 Point Drill Press Vise

This new Vise solves the problem of holding irregular shaped parts requiring a tapping or drilling operation.

Built in large and small sizes
Price $15.00 and $25.00 respectively

Write for our new Bulletin

DEMCO Inc., 105-115 S. Calvert St., Baltimore, Md.

Quicker and Safer Drill Set-Ups

Holding work by hand is dangerous. The Combination Drill Table and Vise makes set-ups for even difficult jobs possible in one or two minutes. Saves time and prevents mishaps.

A safety tool that saves its cost in labor every six months.

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Packer, for rough service; ***Standard,*** for general use; ***Weston,*** extra heavy; ***Universal*** and ***Short Ratchet.***

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The Armstrong Universal

The "Universal," shown above, may be used in awkward corners and confined spaces where other Ratchets are useless. Often pays for itself on a single job. Simplest, strongest, fastest.

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"The Tool Holder People"

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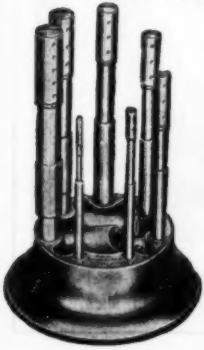
The Copperhead Lap Set

contains 7 Laps in following sizes:
⅛, 3/16, ¼, 5/16, ⅜, 7/16, ½.



The body of a ***Copperhead Lap*** is made of steel and permanent, the sleeve is made of copper and renewable when worn out. Copperhead Laps are cost reducers; cut freely, and produce a clean and true hole. They have new and patented features.

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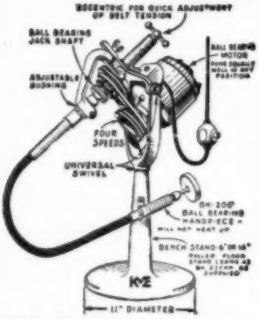
Builders and designers of plain and intricate Dies and Special Machinery

Keller "BK" Flexible Shaft Grinder

"The Machine of 100 Uses"



¼—⅓— ½H. P.
Speeds up to 10,500

COMPLETE LINE OF ACCESSORIES

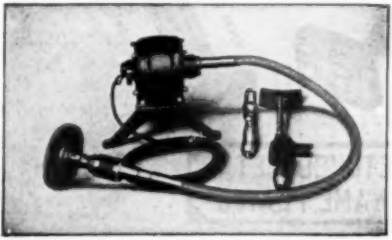
Rotary Files—
Emery Wheels—Sanding Drums—
Wire Brushes, Etc.

Keller Mech. Engineering Corp., 58A Washington St., **Brooklyn, N.Y.**

(See Page 71)

The Whirlwind Buffer and Grinder

Will cut the cost on any unhandy grinding or polishing job



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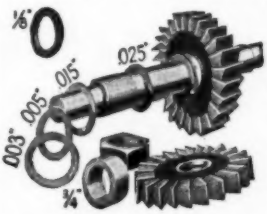
Steel Spacing Washers—

Made of a good grade of Cold Rolled Strip Steel, also known as Shim Steel



Stock sizes for arbors of following diameters: 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 3/8, 1 1/2, 1 5/8, 1 3/4, 1 7/8, 2, 2 1/4, 2 1/2, 3, 3 1/2 and 4 in. and larger.

Stock thicknesses: .002, .003, .004, .005, .006, .007, .008, .010, .012, .015, .020, .025, .032, .047, .063, .093 and .125 inch.

Other thicknesses up to 3.000" made to order, with keyways if so ordered.

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We are Specialists—

in manufacturing any design collet—from the smallest to the largest sizes, either from sample or drawing, and including Screw Machine Collets.

Prices quoted on application

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in all lines of business, in every state in the Union, who use machine tools in their plants.

It goes to more of them than any other publication on earth, because we mail it to them.

Our method is simple, as most good things are, and as effective as it is simple.

Write for rates and full particulars

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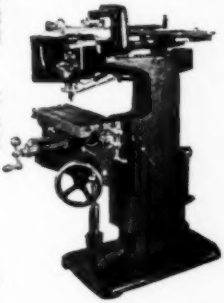
Universal Die Sinking and Engraving Machines

designed to save time and money on the production of light and heavy dies, molds, stamps and general engraved work—



in brass, steel or cast iron. Built by a firm having over thirty years of experience, having equipped many prominent work-shops.

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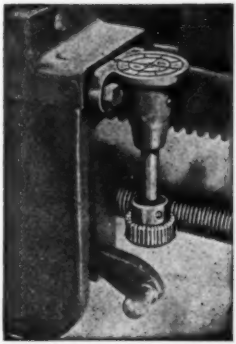
Thread cutting on engine lathes made easy, and at lower cost. Made in four sizes. Can be easily attached to all size lathes. A reliable device that will aid the operator in the work of cutting threads. With it threads can be cut close up to shoulders as easily as the ordinary thread.



Eliminates stopping or reversing the lathe.

The many repeat orders received prove it is satisfactory after trial.

Can be shipped within two days after receipt of order.

Sent on thirty days' trial. Send for latest folder today.

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Etco Keyless Ball Bearing Drill Chucks

Now Made With

Holding Collar for Electric Drills and Portable Tools.

Can be furnished with any Thread or Taper to fit your Drills.

Shipped on 10 days' trial

Chuck with Holding Collar

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Winterhoff Portable Production Drills

No. 0 JUNIOR DRILL
10½" Swing, 0 to ⅝" Capacity

$55, F. O. B. Elkhart

Equipped with ¼ h. p. motor, two step cone pulley giving speeds of 1100 and 2300 r. p. m., horizontal drive gives full power to the 1¼" endless belt furnished with machine. Driven cone has bearing support at each end; all parts accurately machined and interchangeable. ***Positively the greatest value*** ever offered in a machine of this kind. Furnished with square machined base at same price.

Drills, Grinders, Disc Grinders, Saws, Sanders. All motor driven.

Send for circulars describing these machines or see your Dealer.

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Spindle Speeds
to 10,000 R. P. M.

SIGOURNEY No. 0

All Ball Bearing High Speed Sensitive Bench Drill Press

AN UNUSUALLY sensitive drill for accurate work at high speeds. Like all Sigourney Drills, it is sold on quality rather than price. All parts are interchangeable.

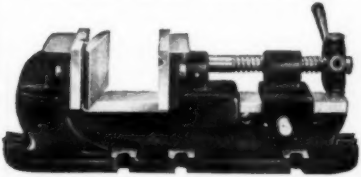
Sigourney Drills are made with one to four spindles. They are all extremely sensitive, accurate and durable.

Write for our Booklet today

THE SIGOURNEY TOOL CO., HARTFORD, CONN.

Gem Drill Press Vise

With Automatic, Quick-Acting, Powerful Grip



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The jaws are made of steel, hardened and ground, with horizontal and vertical "V" grooves. The independent swivel jaw holds taper and irregular work with a bull-dog grip. Its quick action, powerful grip and adaptability make it ***the most efficient vise on the market.*** Made in three sizes. Write today for folder, picturing its use in drilling and milling operations.

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On Your 1-Spindle Drilling Machine

The U. S. Multiple Drill Head converts any single spindle drill into a multiple drill press with two to six adjustable spindles that will drill any pattern while utilizing the same speeds and feeds required for drilling one hole at a time.

Send your problems to our drill-head experts. If necessary they can design special heads with fixed or adjustable spindle to fit your needs.

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Michigan Agents—National Sales Engineering Corp., Detroit, Mich.

U. S. Sensitive Motor Driven 14" Floor Drill

A convenient, reliable machine for the quick and accurate drilling of holes ½" and smaller.

Price with motor, switch and belts -	$115
Or with Counter-shaft for Belt Drive	$70

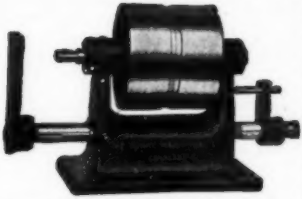
Built in a machine tool shop for practical use, according to the best engineering practices. It will give you efficient, economical service in every operation within its capacity.

The U. S. Machine Tool Co.

1952 W. 6th St., Cincinnati, Ohio

BURKE Tapping Machines

Profitable on all Light Tapping



Reaming, lapping, burring, counter-sinking, assembling, and many other operations are easily performed by Burke Tapping Machines, practically automatically.

These handy tools keep pace with the speediest operators, whose only duty is to center the work for engagement and pull it out when the tap has reached the proper depth.

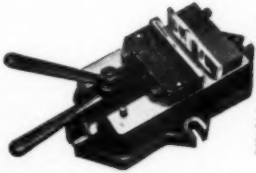
Accurate, dependable and economical to run, a Burke Tapping Machine belongs in every up-to-date shop. Our catalog tells all about them.

The Burke Machine Tool Co.

297 East 16th Street, CONNEAUT, OHIO

Quick Acting—Powerful Gripping

Hartford Milling Vise



Jaw width .....5"
Jaw depth .....1¼"
Maximum opening...3½"
Weight.....40 lbs.

Also made in the swivel-jaw type with hard or soft jaws, maximum opening 2¼".

The "Hartford" is designed for the very hardest, most accurate usage. Special construction includes cam and eccentric lever handles for quick acting, powerful grip—special iron base and drop forged steel parts for sturdiness and perfect alignment of jaws.

Send for descriptive catalog illustrating its usefulness

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Re-Orders prove the worth of

"The Handiest Rack"

Here's how one company ordered and re-ordered.

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Shipped on trial if you wish

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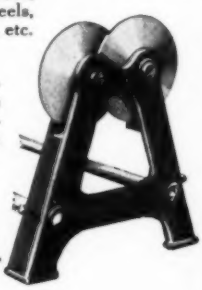
Always on the level

The most practical, sensitive and inexpensive device manufactured for balancing pulleys, cones, armatures, fly wheels, polishing wheels, etc.

Will set anywhere and is easily portable. In sizes up to 24,000 pounds capacity.



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Sundstrand Machine Tool Co.

Rockford, Ill.

Fisher Bender

Made of Malleable Iron and Steel

We also Manufacture Punching and Cutting Machines

Bends cold up to ½" round or square 1½"x⅜" channel iron 2¼"x5/16" flat iron. Weight 34 lbs.

Price $20.00

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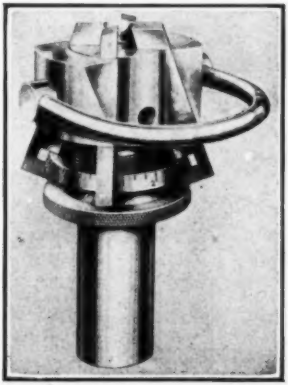
See our next month's ad



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Time Lost
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Micrometer adjustment of blades either way.
Interchangeable shanks.
Six sizes only required for capacities from 1/16" to 2½".
Carefully made and thoroughly inspected as to accuracy and workmanship.

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First Process

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No Flash! No Tong-hold!
No Draft! No Holes to Bore!

NO WASTE AT ALL!

Our customer benefited greatly by this amazing forging record. Our engineering department is at your service. Where we have helped others—we can help you.

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They welcome gruelling service

3 Sizes

Taylor-Winfield spot welders, butt-welders, portable welders, seam welders — all are built by specialists!

The Taylor "N" is especially designed for gruelling service. Hour after hour these heavy duty machines produce more welders more economically and speedily!

No matter what your welding problems, put them up to Taylor-Winfield!

Write us for details on complete Taylor-Winfield line

THE TAYLOR-WINFIELD CORP.
WARREN, OHIO

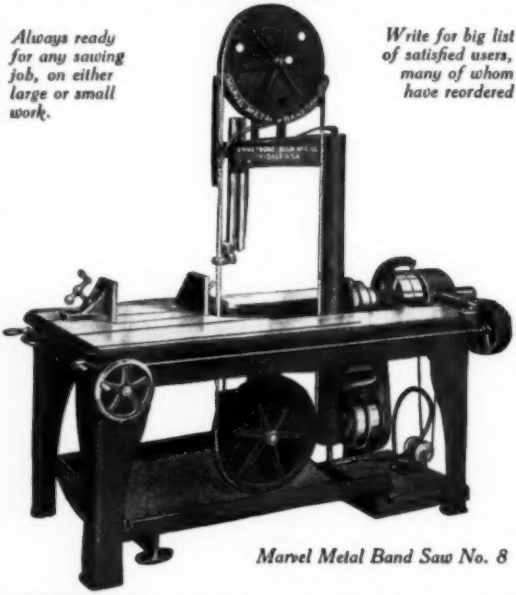
TAYLOR-WINFIELD WELDERS

Spot, Butt, Seam or Portable

The Marvel Metal Band Saw

Always ready for any sawing job, on either large or small work.

Write for big list of satisfied users, many of whom have reordered



Marvel Metal Band Saw No. 8

UNIVERSAL in its adaptation to every variety of metal sawing. It saws bars, beams, channels, tubes, etc., rapidly and accurately, and does the finest tool room work. Saws at an angle either way without swinging the bar around the shop. Has big capacity up to 18". The large bed gives lots of room for material and tools. A saw for every need.

Write for Circular or the Complete Catalog of MARVEL Saws

ARMSTRONG-BLUM MFG. CO., 341 N.

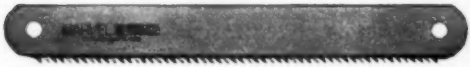
Eliminate Your Hack Saw Blade Troubles

By Using the New Patented

Marvel High-Speed-Edge Hack Saw Blade

For Use In All Power Machines

Genuine High Speed Steel Cutting Edge
Positively Unbreakable



HIGH-SPEED-EDGE
MARVEL
ARMSTRONG-BLUM MFG. CO. CHICAGO U.S.A.

[Made in 12, 14, 17, 18, 21 and 24 inch lengths.]

[6, 8, 10, and 14 teeth to the in., in all lengths.]

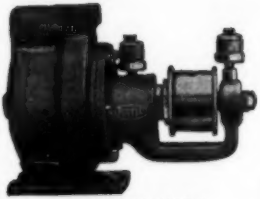
Points of Superiority

Guaranteed.
Original, patented.
Cuts twice as fast.
Positively unbreakable.
A straighter, truer cut.
Most economical, most efficient.
Genuine high speed steel cutting edge.
At least six times the amount of cutting.
Modern methods of manufacturing assure uniformity.

They outlast common blades many times over, never break in the machine, and are cheaper in the end.

Once tried, you will want no other. Complete details and prices on request.

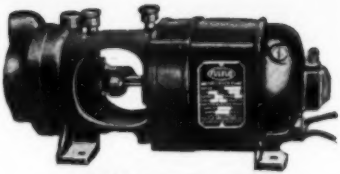
341 N. Francisco Ave., CHICAGO, ILL.



GRINDER PUMP

FULFLO

VOLUME PUMPS



MOTOR DRIVEN UNITS
½ to 5 H. P. 5 to 75 G. P. M.

FULFLO delivers coolant in volumes which promotes efficiency in cutting tools.

The full, copious flow from the Fulflo is needed to make the best tool, with the best coolant, most effective.

FULFLO does not clog, therefore it always works. It's the trouble proof pump.

No machines stopped to unclog pump. All the chips you can get into it pass through without harm.

FULFLO has longest life because its only pumping part does not wear.

MANUFACTURED BY

FULFLO SPECIALTIES CO., BLANCHESTER, OHIO

New Model B-L "GUSHER"

Reversible Belt Driven Pumps

Free of complications

No gears

No foot or relief valves

No packing nuts

No priming

Delivers 53 gallons per minute at a 4-ft. head at 400 R.P.M.

—

Model T-L delivers 22 gallons.

SIMPLICITY is the keynote of excellence, especially in mechanics.

"GUSHERS" are the simplest lubricant pumps made.

AN OIL WINDOW makes lubrication visible in Model B-L. Other features are—deep grooved ball bearings; automatic oiling; sufficient clearance for passing small chips and abrasive matter; an instant and easy flow, free from air bubbles and pulsations; highest efficiency, and unusual wearing qualities.

Write for complete Catalog of "Gushers," with facilities from 12 to 75 gallons per minute, belt or motor drive

The Ruthman Machinery Co.

528-534 E. Front St., Cincinnati, Ohio

Established 1858 **SAUNDERS** *Incorporated 1901*

Pipe Threading and Cutting Machinery

Belt or Electric Motor Driven

All sizes, ⅛ inch to 18 inches inclusive

Motor Driven Machines for Plumbers and Steam Fitters

For

Permanent or Portable Installation

No. 4-B
½ to 4" inclusive

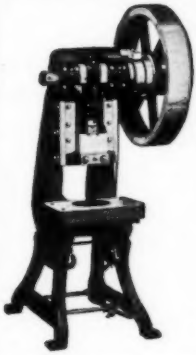
No. 5-D
1 to 6" inclusive

Send for Catalogue

D. Saunders' Sons, Inc.

31 Atherton Street, Yonkers, N. Y.

The Spirit Of the Times



is reflected in the speed and stamina of Rockford High Duty Punch Presses.

They are built to produce and maintain Hi-Production—and they do it.

Wide range of sizes and types.

Write today for new catalog

Rockford Iron Works

Rockford, Ill.

Punch MORE Holes

with

T. H. L. PUNCHES

T. H. L. Punches will produce more than the average number of holes, for they are made of the highest grade, dependable tool steel and are hardened and tempered—***right.*** Our experience of over 35 years in making of punches assures you satisfactory, continuous and profitable production.

A Trial Order

will convince you. We carry large stocks of regular sizes for immediate delivery—special sizes quickly made.

Write for a copy of our catalog

T. H. Lewthwaite Machine Co.

311 East 47th St., *(Est. 1890)* **New York City**

Repay Cost 5 Times a Year

Let us tell you about the BIG Profits in TOWSLEY Trucks

Efficiency EXPERTS say that

TOWSLEY TRUCKS

repay their cost every two to three months.

Every style for every need.

Many Sizes and Styles from $10 up.

Write us for details of the BIG truck profits today!

John T. Towsley Mfg. Co., Cincinnati, Ohio, U. S. A.

Equip with

BRIDGEBILT
Factory Seating

Adjustable for comfort—steel for long life

Select the chairs and stools for your factory from this line. They will meet your particular needs and stand up under any wear you give them.

Write for prices and illustrated folder

The Chicago Wire Chair Co.

616 No. LaSalle St., Chicago, Ill.

We want you as a regular user of our Hollow Bored Forgings and Steel Shafts

THE BACK-BONE of our business is our old friends. Each of them began with a single order. We gave them quality, prices and service that caused them to look to us as their regular source of supply.

WHATEVER your needs in our line, send us your blueprints and try us out. We want to serve you so well that you will become one of our "regulars."

Mail blueprint today for quotation

American Hollow Boring Co.
Erie, Penna.

Reduce Tap Breakage

with the NEW

Industrial Friction Tapper

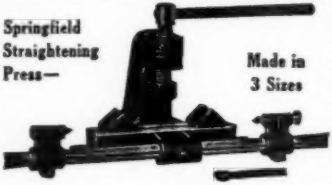
This new friction driven Tapper delivers a very sensitive and speedy drive to the tapping spindle, greatly reducing tap breakage and producing accurate threads. Type SL-2, equipped with adjustable sliding table is shown. Type PN-2 is identically the same, except that it has plain work table.

Send for Folder giving Complete Details

The Reeve-Fritts Company
562 W. Washington Blvd., Chicago, Ill.
PHONE MAIN 2380

Cut Your Straightening Costs

Springfield Straightening Press—



Made in 3 Sizes

Accurate Straightening Service in Shop Factory Toolroom Garage

The arrangement of the Springfield makes it the ideal tool for straightening any length of rough or finished work—truing sprung tools—or testing and balancing cams, crank shafts, etc. Placed on the bench it saves the operator's time by eliminating waste steps, and makes for quicker handling of the work.

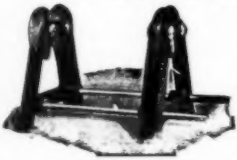
Let us send you a folder illustrating its many uses

The Springfield Machine Tool Company

633 West Southern Avenue, SPRINGFIELD, OHIO

We also manufacture Engine Lathes and Shapers

Made in 6 Sizes for Balancing Anything That Revolves up to 24000 lbs.



Anderson Improved Balancing Ways

Require no leveling or adjustment. They are especially sensitive! Spindles and discs are hardended like the frame—they cannot lose their effectiveness or become injured by use.

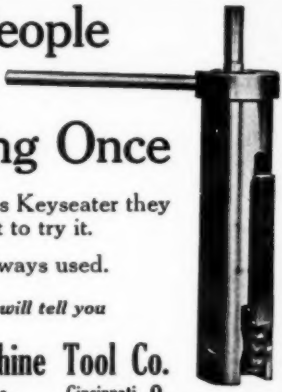
"Swing"	20"	40"	60"	72"	96"	72"
Greatest distance bet. standards	20"	30"	30"	66"	88"	20'
Capacity in lbs.	1000	2000	2000	5000	10000	24000
Approx. shipping weight	45	90	150	350	650	
Code	Bend	Bid	Bis	Bib	Ben	

Any of above can be furnished with longer shafts

Anderson Bros. Mfg. Co.

1915 Kishwaukee St., Rockford, Ill.

Most People Will Try Anything Once



If they see this Keyseater they will also want to try it.

Once tried always used.

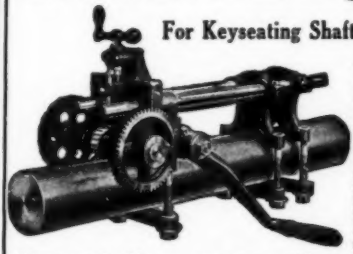
Catalog O will tell you

National Machine Tool Co.

2268 Spring Grove Ave., Cincinnati, O.

Invaluable in Emergencies

For Keyseating Shafting in Place



The BURR Portable Keyseater

Without dismantling shafting or tearing down equipment, it cuts a perfect keyway 12" long, anywhere, in any position, in shafts up to 5" dia.

Have one on hand for your next emergency job. It will save you a vast amount of trouble and expense. Made in seven sizes, hand or power driven.

Over 10,000 in use—order yours today

JOHN T. BURR & SON

422 Kent Ave., Brooklyn, N. Y.

ATTENTION—Try This Tool

For 10 days. You will want more of them

The

IMPROVED E-Z SET BORING TOOL

Made in 3 Sizes

Compact, Simple in Construction, Positive Adjustment, TOOL or PRODUCTION work—On Milling Machine, Boring Mill, Drill Press, Lathe or Screw Machine.

Ask for our descriptive circular, with net prices.

The Maxwell Products Co.

Ottawa & Indiana Ave., Cleveland, Ohio

"Utility Tools"

Cut Replacement Costs

This Interchangeable Counterbore and Spot Facer is equipped to serve you better, longer and with greater economy—because of

Four Points of Superiority

(1) Pilots cannot break or twist off.
(2) Cutters cannot break and are easily removed.
(3) Set screws cannot loosen.
(4) The drive is the utmost in simplicity and power.

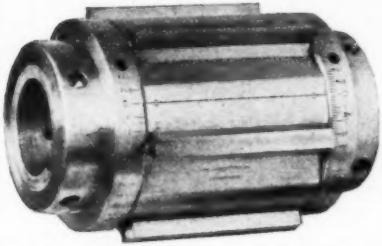
If you are interested in tool economy, send for catalog; it will pay you

The J. C. Glenzer Company

6469 Epworth Blvd., Detroit, Mich.

Lambert Reamers—

With Standard Bores to Fit Your Boring Bars



Made in styles and sizes to fit your requirements.

Fitted entirely with High Speed Blades.

The 5 in. Tool shown expands 1 in. They all afford quick, accurate setting, and will reduce your costs. Send for prices and catalog.

Lambert Machine & Engineering Co.

Euclid Ave. and 55th St., Cleveland, Ohio

SCULLY-JONES Hardened and Ground Solid Spacing Collars

Ends are ground parallel, lengths are accurate

Made of Machinery Steel deeply carbonized and hardened

All thicknesses for standard arbors carried in stock for immediate delivery in any desired quantities. Write for our Small Tool Catalog No. 35 listing and describing our complete line of "WEAR-EVER" PRODUCTION TOOLS.

Scully-Jones & Company

TOOL DIVISION

13th and Robey Streets, Chicago, Illinois

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DETROIT, MICH., - Gross & Heming, 704 Detroit Savings Bank Bldg.
CLEVELAND, OHIO, - Cleveland Tool & Supply Co., 1427 W. Sixth St.

Announcing!

A New Size Ettco Tapper

"Sensitive as your Finger Tips."

No. 1 Ettco Tapper—capacity 1/4-inch.
No. 2 Ettco Tapper—capacity 3/8-inch.
No. 3 Ettco Tapper—capacity 5/8-inch.

No. 3—Capacity up to 5/8"

Anything that can be tapped by hand can be tapped with an Ettco tapper. The Ettco taps blind holes as easily as those which go through—and it eliminates broken taps.

There is no friction to adjust in the Ettco.

Production increased 100% to 500% on many jobs.

Don't condemn the taps you are using; try an Ettco tapper for ten days without obligation.

Eastern Tube & Tool Co., Inc., 600 Johnson Ave., BROOKLYN, N. Y.

No. 2 ALTO Motor Driven Three Speed Tapping Machine

Semi-Automatic

SAVES—time.
SAVES—taps.
SAVES—in the first cost and in the long run.

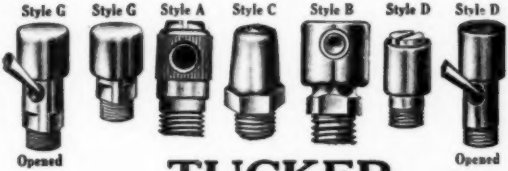
Its main points are—

Motor driven, 3 speed, double speed reverse, quick change, back geared cone clutch. Sensitive for small tapping and powerful enough to drive 5/8" taps through steel.

We also make smaller high speed tappers.

Write for descriptive literature and attractive prices

The Alto Mfg. Co., 1647-51 Wolfram St. Chicago, Ill.



TUCKER

Oil Hole Covers

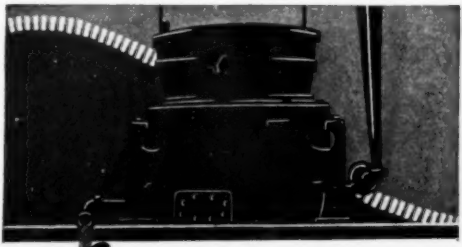
ALSO—HERCULES
SHEAR AND ROD CUTTERS
AND
SCREW MACHINE PRODUCTS

A Type for Every Service

Send for Catalogue No. 12

W. W. & C. F. TUCKER, INC., 612 Capitol Ave., Hartford, Conn.

FOREIGN AGENTS: Fenwick Freres & Co., Paris, France
Alfred Herbert, Ltd., Yokohama, Japan



6 to 15 gallons per load—three or four loads per hour. ***Write for catalog.***

Tolhurst Machine Works
Established 1852
Troy, N. Y.

"Keep Your Production on Wheels"

This is the message of a foremost efficiency expert.

The CanTon Portable Crane

does this for you! It makes it possible for one man to lift pieces weighing up to 6000 pounds, and to move those pieces to the most inaccessible part of your shop.

A size for every use
Write for booklet E-8

CANTON FOUNDRY & MACHINE CO., Canton, Ohio

New York Office: 101 West 31st Street

Why Waste Time On Broken Taps?

Every minute spent by your high-priced mechanics digging out broken taps is a dead loss. When a tap breaks it should be ***removed quickly***—

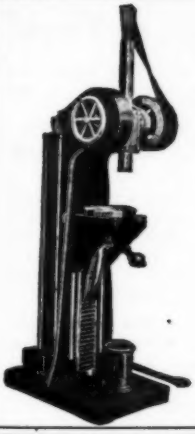
The Walton Tap Extractor

Will do this! Its steel finders back out the tap ***without injuring the threads.*** It will save you many hours in the course of the year—paying for itself over and over again. Made in three and four-flute styles.

So good we ship on 60-day trial

The Walton Company

302 Pearl St., Hartford, Conn.



Atlas Arbor Presses

For All Forcing Operations

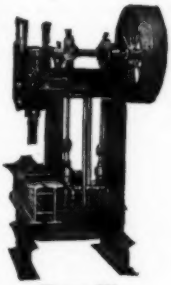
Illustration shows our No. 55 Power Drive Press, which is adaptable for fast production work and capable of supplying ten tons pressure.

Write for our Bulletin—showing 30 different sizes

Atlas Press Co.

Department B,
Kalamazoo, Michigan

Lourie Hydraulic Presses



Type W

A High Speed Press

for

Straightening
Moulding
Punching
Forming

Lourie Hydraulic Co.

Springfield, Illinois

"Borgeson Universal Joints"

Are you a user of Universal Joints?
If so!

Remember well and bear in mind that a good Universal Joint is hard to find. But if you want one tried and true, you will want the "Borgeson" before you are through.

You will become not only a "Buyer" but a "Booster" for "Borgeson."

SIZES: ⅜, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, 1½, 1¾, 2, 2½, 2⅞.

Should you require Special Universal Joints, be sure to write for quotation.

Complete description gladly furnished upon request

The Borgeson Mfg. Co., Inc.
Torrington, Conn.

Wood-Working Machinery

For a large list of new and used wood-working machinery and allied equipment, consult **Wood-Working Machinery**—a publication similar to this but devoted to the advertising of saw-mill and wood-working machines. A copy may be had free on application to the publisher.

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508 So. Dearborn St., Chicago, Ill.

Vanderbeek Universal Joints

—represent the practical refinements of 25 years experience in manufacturing Universal Joints. All parts are generous sized, fully protected against dirt, and are practically self-oiling. Exceptionally strong, they transmit full power up to 70°.

Vanderbeek Joints are in daily use on thousands of machines.

Write today for our Descriptive Catalog.

American Tool Works, Inc.
Hartford, Conn., U. S. A.

TRY us on your

Difficult Riveting Job

We have solved the riveting problem for many manufacturers, who thought hand riveting was their only way out, until they investigated the "GRANT," which does their work better and at much less cost.

"GRANT" Noiseless Rivet Spinning Machines and Rotary Vibrating Riveters cover all classes of work, including awkward pieces and riveting in out-of-the-way places.

Tell us what your work is or send samples for riveting

The Grant Mfg. & Machine Co.
C. E. Station, Bridgeport, Conn.

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Arc Lamps, Blue-Printing and Photo.
Pease Co., C. F., 865 N. Franklin, Chicago

Auto-Gages For Dies
Danly Machine Specialties, Inc., 4913 Lincoln Ave., Chicago

Automatics
New Britain Machine Co., New Britain, Conn.

Balancing Ways
Anderson Bros. Mfg. Co., Rockford, Ill.
Rowsher Co., N. F., South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill.

Balls, Bearing and Burnishing
Abbott Ball Co., Hartford, Conn.

Band Saw Machines, for Metal
Armstrong-Blum Mfg. Co., 341 N. Francisco Av., Chicago
Porter-Cable Machine Co., Syracuse, N. Y.

Barrels, Tumbling
Abbott Ball Co., Hartford, Conn.
Scully-Jones & Co., 2012 W. 13th, Chicago

Bench Legs, Steel
New Britain Mchs. Co., New Britain, Conn.
Pollard Bros. Mfg. Co., 4038 N. Tripp Ave., Chicago

Bending Machines, Hand and Power
Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago
Hendley & Whittemore Co., Beloit, Wis.
Lowthwaite Mchs. Co., T.H.417E. 31st., N.Y.
Louis Hydraulic Co., Springfield, Ill.
Medalie's Mchs. Co., 917 Westchester Av., New York
Pedrick Tool & Machine Co., Philadelphia

Bending Rolls
Dreis & Krump Mfg. Co., 7422 Loomis Blvd., Chicago
Hendley & Whittemore Co., Beloit, Wis.

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Blue-Print Paper
Pease Co., C. F., 865 N. Franklin, Chicago

Blue-Print and Photostat Washing and Drying Machines
Pease Co., C. F., 865 N. Franklin, Chicago

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Economy Engineering Co., Willoughby, O.
Foote-Burt Co., Cleveland, O.

Bolt and Nut Threading Attachments
Saunders' Sons, D., Inc., Yonkers, N. Y.

Bolt Threading Dieheads
Saunders' Sons, D., Inc., Yonkers, N. Y.

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Pedrick Tool & Machine Co., Philadelphia

Boring Bars, Cylinder
Pedrick Tool & Machine Co., Philadelphia

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Barnes Co., W. F. & John, Rockford, Ill.
Defiance Machine Co., Defiance, O.
Landis Tool Co., Waynesboro, Pa.
Lucas Machine Tool Co., Cleveland, O.
Sommer & Adams Co., Cleveland, O.

Boring Machines, Horizontal
Avey Drilling Machine Co., Cincinnati
Lambert Mchs. & Engin'g Co., Cleveland, O.
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Boring Tools
Maxwell Products Co., Cleveland, O.
Rickert-Shafer Co., Erie, Pa.

Brakes, Steel, Hand and Power
Dreis & Krump Mfg. Co., 7422 Loomis Blvd., Chicago

Brands, Burning
Schwerdtle Stamp Co., Bridgeport, Conn.

Bulldozers, Hydraulic
Louris Hydraulic Co., Springfield, Ill.

Burnishing Equipment, Ball
Abbott Ball Co., Elmwood, Conn.

Bushing Finishing Machines.
Economy Engineering Co., Willoughby, O.

Centering Machines
Sundstrand Machine Tool Co., Rockford, Ill.

Chucking Machines
New Britain Mchs. Co., New Britain, Conn.
Springfield Machine Tool Co., Springfield, O.

Chucks, Collet
Hardinge Brothers, Inc., 1770 Bertsen Ave., Chicago

Chucks, Drill
Eastern Tube & Tool Co., Inc., 580 Johnson Ave., Brooklyn, N. Y.
Hartford Special Mchy. Co., Hartford, Conn.
Sandusky Nut Co., Sandusky, Ohio
Scully-Jones & Co., 2012 W. 13th, Chicago

Chucks, Drill and Tap
Scully-Jones & Co., 2012 W. 13th, Chicago

Chucks, Keyway Cutting
Scully-Jones & Co., Ry. Exch. Bldg., Chicago

Chucks, Magnetic
J. & H. Electric Co., Providence, R. I.

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Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Canton Foundry & Mchs. Co., Canton, Ohio

Crank Pin Turning Machine
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Davis Keyseater Co., Rochester, N. Y.
Scully-Jones & Co., 2012 W. 13th, Chicago

Cutters, Milling
Genesee Mfg. Co., Rochester, N. Y.
Reisinger Mch. Tool Corp., Rochester, N. Y.

Cylinder Boring Machines, Portable
Pedrick Tool & Machine Co., Philadelphia

Demagnetizers
J. & H. Electric Co., Providence, R. I.

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Oliver Instrument Co., Adrian, Mich.

Dies
Groetchen Tool & Mfg. Co., 721 Fulton, Chicago

Dies, Automatic Self-Opening
Rickert-Shafer Co., Erie, Pa.

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Danly Machine Specialties, Inc., 4913 Lincoln Ave., Chicago
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Gorton Machine Co., Geo., Racine, Wis.

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Peerless Machine Co., Racine, Wis.

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Modern Machine Tool Co., Jackson, Mich.

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United States Drill Head Co., Cincinnati

Drilling Machines, Bench
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Barnes Co., W. F. & John, Rockford, Ill.
Burke Machine Tool Co., Conneaut, Ohio
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Edlund Machinery Co., Inc., Cortland, N. Y.
High Speed Hammer Co., Rochester, N. Y.
Merit Oil Equipment Co., Cleveland, O.
Sigourney Tool Co., Hartford, Conn.
Stecher Co., Chas., 2452 N. Greenview Ave., Chicago
Taylor & Fenn Co., Hartford, Conn.
Winterhoff Tool & Machine Co., Elkhart, Ind.

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Edlund Machinery Co., inc., Cortland, N. Y.

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Merit Oil Equipment Co., Cleveland, O.
Sigourney Tool Co., Hartford, Conn.
Taylor & Fenn Co., Hartford, Conn.

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Stow Flexible Shaft Co., Philadelphia, Pa.
Strand Co., N. A., 6001 N. Lincoln St., Chicago
Winterhoff Tool & Machine Co., Elkhart, Ind.

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Drilling Machines, Radial
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Taylor & Fenn Co., Hartford, Conn.

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Foote-Burt Co., Cleveland, O.
Leland-Gifford Co., Worcester, Mass.
Merit Oil Equipment Co., Cleveland, O.
Sigourney Tool Co., Hartford, Conn.
Stecher Co., Chas., 2452 N. Greenview Ave., Chicago
Taylor & Fenn Co., Hartford, Conn.
U. S. Machine Tool Co., Cincinnati, O.

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Merit Oil Equipment Co., Cleveland, O.
Sigourney Tool Co., Hartford, Conn.
Standard Electrical Tool Co., Cincinnati, O.
Stecher Co., Chas., 2452 N. Greenview Ave., Chicago
Taylor & Fenn Co., Hartford, Conn.

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Emery Wheel Dressers and Cutters
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Western Tool & Mfg. Co., Springfield, O.

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Martindale Electric Co., Cleveland, O.

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Pease Co., C. F., 865 N. Franklin, Chicago

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Wardwell Mfg. Co., Cleveland, O.
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Thompson Grinder Co., Springfield, Ohio

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Cisco Machine Tool Co., Cincinnati, Ohio.

Lathes, Turret
Bradford Machine Tool Co., Cincinnati, O.
Monarch Machine Tool Co., Sidney, O.

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White Machy. Co., A. D., 168 N. Jefferson St., Chicago
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Winterer, Herman L., Philadelphia

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Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago
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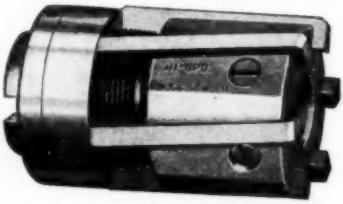
Wood Working Machinery
Hendley & Whittemore Co., Beloit, Wis.
New Britain Machine Co., New Britain, Conn.
Porter-Cable Machine Co., Syracuse, N. Y.
Towsley Mfg. Co., John T., Cincinnati

Worms
Massachusetts Gear & T. Co., Woburn, Mass.

"X-L" Adjustable Inserted Spiral Blade Shell and Machine Reamer



Reamers made with Left Hand Angle Cutting Blades do not dig in, and all chatter is eliminated. This means free, clean cutting, smooth holes, and increased production. The range of expansion is from .100" in the smaller sizes to .150" in the larger sizes. Made with High Speed Steel Blades.

This is a real production reamer. The left hand helical flutes cut fast and clean. Made only in high speed steel. Made with straight and tapered shanks.

All Sizes Carried in Stock

Catalog on Request

The Schellenbach-Hunt Tool Co.

118 Opera Place, Cincinnati, Ohio

Agents: **E. E. Fletcher, 6007 Euclid Ave., Cleveland, Ohio**

Used and Rebuilt Machinery Section

Lists of Used and Rebuilt Machinery, either For Sale, Wanted or For Exchange, set in uniform style, will be published in the Classified Section at the rate of **50 cents a line**, across the page, each issue, plus **$2.50** for name and address. Minimum charge, **$2.00**. No display permitted.

Write directly to those offering the machines for sale for prices and full descriptions. If what you seek is not advertised, use the blank enclosed to make known your wants to the publisher, who will pass them along to all Machine Tool Blue Book advertisers.

Monthly Circulation of Machine Tool Blue Book, 25,000.

FOR SALE BY

Century Electric Company, - 1806 Pine Street, St. Louis, Mo.

1—Scrap metal baling press, Famous Mfg. Co., good condition.
1—Scrap metal baling press, later model, Famous Mfg. Co., ex. condition.

FOR SALE BY

Clark Machinery Co., 1235 St. Clair Ave., Cleveland, O.

Lathe, 24"x16' Schumacher & Boye.
Milling mchs., plain and universal.
Planer, 42"x42"x8' Gray, 2 heads.
Pipe machine, motor driven.
Spinning lathes, Pryibil 22"—44" extension.
Turret lathes, W. & S. No. 2 univ.
Tapper, Garvin No. 2 automatic.

FOR SALE BY

Surplus Material & Mchry. Co., 8735 Kercheval Ave., Detroit, Mich.

Boring and turning mill, Gisholt 30.
Drill, Cleveland 36, b. g., p. f.
Hand screw, W. & S. No. 6, power feed.
Saw table, variety, Baxter-Whitney, motor drive.
Shaper, Baxter-Whitney, 2-spindle, motor drive.

FOR SALE BY

Duff Machinery Corporation, - 47 S. George St., York, Pa.

1—Automatic, Gridley 4", 4-spindle, old type.
1—Grinder, disc, Besly No. 16, 24", 98% new.
1—Grinder, Morse full universal, 10"x36", nearly new, with internal attachment, tool and cutter attachment and many other attachments.
1—Pipe threader, Eaton, Cole & Burnham 4", with dies.

FOR SALE BY

F. H. Allen, - - 519 Railroad Ave., Donaldsonville, La.

BORING BAR.

1—Brand new portable boring bar 8'x5"

WHEEL PRESS.

1—Brand new 150 ton wheel press.
These high grade machines will be sold at little over half price.

USED AND REBUILT MACHINERY

FOR SALE BY

A. M. Stoehr Machinery Co., 418 Mid-City Bank Bldg., Chicago, Ill.

Auto. sc. mch., B. & S. No. 00 $ 375.
Auto. sc. mch., B. & S. No. 0. 425.
Auto. sc. mch., B. & S. No. 1. 525.
Bolt cutter, 3-spdl. Acme, 1"... 350.
Grinders, Nos. 26-18 Besly dbl. spindle disc, complete..... 450.
Hand sc. mch., B. & S. No. 1.. 125.
Hand sc. mch., P. & W. No. 2 150.
Miller, 70"x22' Sellers planer type, 5 heads, heavy duty.... 6000.
Planer, 56x56x12' Cincinnati... 900.
Press, No. 34 Bliss, arch..... 250.
Press, No. 16 Bliss, horning... $ 200.
Press, R. & K., dbl. crank, 39" bet. uprights, roller feed, 2½" stroke, wt. abt. 8000 lbs..... 525.
Presses, hydraulic and pumps 300 ton, 4 rod construction... 475.
15 ton, channel construction... 150.
15 ton, 2 rod construction..... 150.
Riveter, No. 4-A High Speed. 275.
Riveter, No. 5-A High Speed. 325.
Saw, 9x9 Sterling, high speed. 85.
Separators, Sawyer magnetic... 90.

All guaranteed good serviceable condition; write us for other bargains.

FOR SALE BY

Wm. C. Johnson & Sons Machinery Co.,

1211-1223 N. 12th St., St. Louis, Mo.

LATHES.

15"x 6' Monarch, q. c. g.
15"x10' Cisco.
16"x 8' Cleveland tool room.
18"x 8' LeBlond, q. c. g.
20"x20' LeBlond.
38"x14' Pond, triple geared.
60" New Haven turning. 7' centers.
18' Wickes pit lathe, extra heavy, and almost new.

MILLING MACHINES.

No. 3 Rockford, hand.
No. 1½ Brown & Sharpe.
No. 3 Cincinnati plain.
No. 4 Cincinnati plain.
Owen duplex.
No. 25 Becker.
No. 12 Kempsmith.
37"x30"x8' Slab miller.

DRILLING MACHINES.

20" Champion.
22" Barnes, sliding head.
3-spindle Allen, h. s.
32" Mechanics.
42" New Haven.
All sizes Barnes.

PLANERS AND SHAPERS.

24"x24"x 6' Powell planer.
36"x36"x18' Hamilton planer.
42"x42"x12' Powell planer.
48"x48"x16' Niles, 2 heads.
16" Smith & Mills shaper.
20" Gould & E., b. g. crank shaper.
10'x7½'x25' D. & H. openside planer.

GRINDERS.

No. 6—26" Besly disc.
No. 50 Gardner disc, 30" capacity.
8" Heald rotary, magnetic chuck.
10"x72" Brown & Sharpe plain.
No. 1 Diamond surface.
5"x18" Ott.
10"x18" Sterling universal.

SCREW AND TURRET MACHINES.

2"x24" J. & L., geared head.
3"x36" J. & L., geared head.
No. 1 Pratt & Whitney.
No. 6 Warner & Swasey.

PRECISION TOOLS

No. 1 Dayton swaging machine.
No. 3½—7" swing Stark bench lathes.

MISCELLANEOUS.

Air compressors.
Belt lacer, 12" Peerless.
Boring mche., hor., No. 2 P. & H.
Boring mche., hor., No. 3 Niles.
Boring mill, 54" Baush, 2 heads.
Boring mill, 84" Niles, 2 hds., h. d.
Furnaces, Stewart cyanide hardening
Gear cutter, No. 1 Schuchardt & S.
Gear hobber, No. 1 Farwell.
Hammer, Bradley 60 lb., belt power.
Hammer, 2000 lb. Niles-B. steam.
Pipe machine, 6" Oster.
Pipe mche., 8" Bignall & Keelet.
Press, No. 16 Stoll inclinable.
Punch, 42" thrt., Cleveland, s. e.
Punch, 48" thrt. Hilles & Jones.
Punch, 36" throat, single end.
Radial drills, 3' and 4' Dreses.
Shear, Lennox, rotary bevel.
Shear, 8' Morgan gate shear.
Shear, bar, No. 620-R Niles, Bement & Pond, 6 hole, 2" cap.
Slotter, 19" Niles.
Welder, butt, 200 amp.
Welder, spot. Toledo 36" reach, 20k. w.

USED AND REBUILT MACHINERY

FOR SALE BY

Severin-Strafer Machinery Corp., 30 Church St., New York City

BORING MILLS, VERTICAL.

10'—16' Betts, extension type.
14'—20' Betts, extension type.
60" Bullard, single pulley drive.
72" Bullard, single pulley drive.
88" Betts, heavy, m. d.
48" Gisholt, rapid traverse.
42" Bullard, turret head.
42" King modern rapid traverse.
84" Niles-Bement-Pond, motor dr.
52" Niles-B'-P. turret & plain head.

BORING MILLS HORIZONTAL.

5" bar Newark, knee type.
5" bar Beamen & Smith floor type.
No. 1 Betts 3" bar, knee type.
5" bar Deitrich & Harvey, floor type.
4½" bar Niles.-B -P., floor type.
5" bar Niles Bement-Pond belt dr., column travel 10';floor plate 16'x11', rapid traverse.

BOLT AND PIPE CUTTERS.

Acme 3", single spindle.
No. 2 Merriman 1½" capacity.
2" National single head bolt.
2" Standard, double head bolt.
No. 2 Merriman, bolt 1½" capacity.
12" Saunders, pipe belt drive.

COMPRESSORS.

5000' Bury direct connected, a. c. synchronous motor, intercooler, exciter, etc.
Sullivan horizontal, belt 8"x10"
Gardner 8" duplex.

DRILLS.

2½' Gang radial belt drive.
4' Dreses plain, gear box.
5' Niles B P., semi-universal radial, speed box drive, tilting table.

GRINDERS.

No. 14 Pratt & Whitney vert., surf.
Landis 36"x144" roll grinder.
84" Diamond surface.
50" Springfield, boring mill type, comb. vertical and horiz. grinder.
10"x36" Norton, plain belt.

HAMMERS.

6000 lb. Chambersburg, steam drop.
Trimming presses No. 2½ B. & S.
2500 lb. Chambersburg, board drop.
1600 lb. Massillon s f., steam forge.
450 lb. Chambersburg, steam forging.
150 lb. Beaudry, upright.

LATHES.

72"x40' Sellers, rapid traverse.
54"x24' H. S. and M. quick change.
42"x36' Bridgeford, geared head.
36"x16' Niles-Bement-Pond, new.
27"x14' American, taper attachment.
26"x24' Schumacher and Boye.
24"x12' American, taper attachment.
24"x16' Lodge & Shipley, t. a.
18"x10' Lodge & S. selective head.
3½x36 Jones-Lamson, turret.
14"x8' Porter, belt driver

MILLING MACHINES.

No. 3 Cincinnati universal, cone.
No. 3 Cincinnati plain.
No. 3 Garvin hand miller.
No. 2B Brown & Sharpe, heavy.
No. 3B Brown & Sharpe, heavy pl.
No. 14A Garvin dividing hds., comp.

PLANERS.

96"x72"x24' D. & H. openside.
72"x72"x18' Pond, rev. motor drive.
84"x84"x30' Sellers, motor drive.
60"x48"x14' Cincinnati, gr. box, m. d.
48"x48"x16' N. B. P., rev. m. d.
52"x36"x22' N. B. P., rev m. d.
42"x42"x30' new Niles-Bement-Pond, revesing motor drive.
42"x42"x26' N. B. P., rev. m. d.
42"x42"x14' Putnam, 4 h p. dr.
36"x36"x30' N. B. P., rev. m. d.
36"x48"x16' Niles-Bement-Pond.

PUNCHES AND SHEARS.

No. 2 Hillis & Jones dbl 36" th., b.d.
No. 5 Hillis & Jones 48" th., m. d.
No. 2 Hillis & Jones 20" throat.
Angle shear, H. & J, 6"x1" cap.
8" Pels, double angle and bar.
No. 4 Hillis & Jones double, 48" throat.
No. 4 Hillis & Jones horiz., 1½"x1".

MISCELLANEOUS.

Bulldozer, W. & W. No. 4.
Cold saw, 60" Newton, m. d.
Core wire straightener, ⅛" to 5/16".
Cranes, jib 12' booms with 6" air hoists.
Crane, wall, 5 ton, 25' overhang.
Gear cutter, No. 2 Bilton.
Hydraulic forging press, 1200 tons.
Planer, plate, 25' H. & J. No. 6.
Planer, rotary 30' Cleveland.
Plate joggler, ⅜" capacity.
Wheel press, 300 ton Woods.
Wheel press, 150 ton Cardwell.
Wire straightening and cutting off machine Schuster.

FOR SALE BY

Boyle Valve Company, - - 5821 So. Ada St., Chicago, Ill,

S. A. E. No. 3140 STEEL.

We are listing herewith a quantity of steel that is on hand at our plant for sale. The entire quantity is 3140 Electric Furnace Cold Melt Chrome Nickel Steel of the following sizes:

75 pcs. 2⅜x.193x12'.
250 " 3⅜x.156x 8'.
170 " 4 x.125x 6'.
250 " 2⅜x.187x12'.
140 " 2⅜x.187x12'.
25 " 3⅜x.300x12'.
17 " 2⅜x.156x 6'.
50 " 2⅜x.156x12'.
175 " 2⅜x.187x12'.
20 " 6-3/16x.187x8'.
32 " 4 x.125x 6'.
30 pcs. 4 x.187x 6'.
28 " 2⅜x.187x12'.
240 " 4 x.156x 8'.
150 " 1⅜x.093x12'.
50 " 1⅜x.100x12'.
10 " 1⅜x 187x12'.
70 " 1⅜x.100x12'.
12 " 3⅜x.100x12'.
10 " 2⅜x.187x10'.
325 " 2 x 093x12'.
120 " 3⅜x.100x12'.

ELECTRIC RIVETERS.

Large Kobert electric riveter, in excellent condition.
Small type of electric riveter, made in our plant.

FOR SALE BY

Carlson Machinery Co., Inc., - - - Davenport, Iowa

GRINDERS

6x32 Norton plain.
10x20 Landis universal.
No. 10 Blanchard vert. surface.
No. 2 B. & S. surf. with mag. chucks.
No. 10 Besly disc, 2 grd. tables.
No. 8 Besly disc.
No. 14 Besly disc.
No. 4 Badger disc, 2 grd. tables.
No. 2 Oakley univ. tool & cutter.
Greenfield tool & cutter.
No. 1 Garvin cutter & reamer.
No. 65 Heald cylinder.

MILLERS.

No. 1 Kempsmith plain.
No. 1 Kempsmith universal.
No. 1 Cleveland plain.
No. 1½ Cincinnati universal.
No. 2 Cleveland plain.
No. 2-B B. & S. pl., s. p. d.
No. 2½-B Milwaukee vertical.
No. 3-B Milwaukee plain.
No. 34 Ohio plain dividing head.
No. 14 Garvin vertical.
No. 15 Garvin plain.
24" Garvin cam.

LATHES.

13"x5' Sheppard, grd. hd., q. c.
14"x6' Hendey grd. hd., q. c. taper attachment, draw in attachment.
15"x6' Rockford semi q. c.
14"x6' Hendey joke head, q. c., relieving att. draw in attach.
16"x8' Carroll-Jamieson.
18 x6' Lodge & Shipley.

DRILL PRESSES.

16" Canedy-Otto,
16" Barnes.
20" Rockford.
25" Snyder, sl. hd. with t. a.
26" Aurora sliding head.
¾" Sipp h. s., b. b., 8" overhang.
36" New Haven.
3' American radial.
3' Hammond sensitive radial.

SHAPERS AND PLANERS.

14" Rockford.
16" Steptoe.
16" Ohio.
16" Smith & Mills.
20" Smith & Mills.
22"x22"x8' Liberty planer, 1 head.
30"x20"x7' Fitchburg planer, 1 hd
36"x36"x8' Betts planer, 1 hd. on rail & with Adams vert. mill att.

SCREW MACHINES AND TURRET LATHES

No. 3 Foster.
No. 4 Warner & Swasey plain.
No. 6 W. & S. p. i. to crge. & turret.
1⅜" B. & O.
2⅜" Acme.
24" Bullard vert., new Era.

MISCELLANEOUS.

Bolt threader, 2⅜" Landis.
Boring mill, No. 1 Cleveland horiz.
Boring mill, No. 2 Rockford horiz.
Boring mill, No. 3A Universal hori.
Centering machine, 4" Pratt & W.
Hobber, gear, No. 12 Barber-C.
Hobber, 24" Shuchardt & Schutte.
Punch press, No. 4 Toledo o. b. i.
Punch press, No. 5 Toledo o. b. i.
Punch press, No. 29 Swaine o. b. i.
Slotter, 18" Niles.

USED AND REBUILT MACHINERY

FOR SALE BY

Herman L. Winterer, 943-53 N. Front St., Philadelphia, Pa.

LATHES.

43"x17' 4½" Bement-Miles.
37½"x14' Johnson d. b. g., q. c. f., t. a.
32"x12' Pittsburgh, heavy duty, q.c.g.
32"x15' American, cone type.
27"x12' Bullard.
26"x16' 6" American, q. c. g., grd. hd.
26"x11' Wickes, q. c. g.
26"x10' Niles, q. c. g.
19"x10' Draper, patent head.
18"x10' Rahn-Larmon, q.c.g., taper.
18" x 7' Chard, d. b. g., semi q. c. g.
18"x 6' South Bend, plain change.
15"x 8' Sidney, q. c., d. b. g., t. a.
14"x 6' Springfield, latest type, tool room type, t. a.
14"x 6' Lodge & Shipley, patent head, taper, pan bed.
14"x8' Lodge & Shipley, q. c.

TURRET LATHES.

3½x28" Pond, triangle.
3x36" Pratt & Whitney, hollow hex.
20x7' Bridgeport, 2½", h. s.
19"x7' Fay & Scott, back grd.
No. 22½ Garvin Monitor.
14"x 6 Warner & Swasey.
No. 3 Foster sc. machines 1-5/16" wire feed, (2).
14½"x9" Cincinnati-Acme, wire feed.
No. 4 B. & S., bar feed, all auto. fds.
No. 2 Smurr & Kamen, wire fd., (5).

DRILL PRESSES.

48" Almond, sens. radial, post type.
40" Barnes horizontal radials, (2).
26" Rockford, tapping attachment.
26" Aurora, sliding head.
24" Foote-Burt heavy duty.
21" Aurora, b. g., p. f.
20" Prentice, plain, (3).
No. 1½ Knight milling & drilling mch.

MILLING MACHINES.

No. 5 Cincinnati, table 9½x50½".
No. 5 Brown & Sharpe vertical.
No. 3 Brown & Sharpe, plain, cone type.
No. 3 Hendey, q. c. g.
No. 1 Van Norman hand miller.
No. 3 Becker-Brainard, new model, q. c. g., vertical attachment.
No. 4 Becker - Brainard. vertical rotary table.
No. 5-C Becker vert., rotary table.

PLANERS AND SHAPERS.

48"x37"x9' Sellers, 2 heads.
48"x48"x12' Gray, 2 heads.
42"x36"x14' Cincinnati, 4 heads.
28" Woodward & P., crk., gear box.
48" Morton draw-cut shaper.
30"x30"x8' American, 1 head.
15" Lodge & Davis shaper.
21" Milwaukee, b. g.

BORING MILLS.

24" Bullard, rapid production.
Boring mill, car wheel, 60" Newton.
42" Bullard, 2 swivel heads, (2).
Boring, drilling and milling machine, 17½' Bement-Miles horiz.
Boring mill, No. 1 Sellers hor., 2½" bar.

PIPE AND BOLT MACHINES.

1½" Acme, bolt, belt drive.
4" & 8" Eaton, Cole & B., pipe.
6" Cox, quick opening dies.
4" Armstrong, No. 00 pipe machine.

MISCELLANEOUS.

Arbor press, No. 8 Greenerd, 36" bet. columns.
Centering mche., 5" Whiton, dbl. sp.
Cold saw, No. 6 Nutter & Barnes.
Elec. hoist, 1-ton Link Belt. 2 ph. a.c.
Electric hoist, 1-ton Shepard, 220 v., d. c., (2).
Generator, No. 100 Oxweld acetyl.
Grinder, 12½"x5' Landis universal.
Grinder, No. 8 Diamond, double end, heavy type, (2).
Grinder, disc, No. 17 Besly.
Grinder, No. 7 Gardner disc, ball bearing, complete.
Grinders, several dbl. end electric.
Hammers, 15, 25 & 40 lbs. Bradley helve.
Hammer, 50 lb. Little Giant, belt dr.
Hammers, 60 lb. Bellefonte upright, 2.
Keyseater, Morton 18" stroke.
Keyseater, No. 4 Catlin, m. d.
Punch or gate shears, 72" Cleveland multiple, 15" throat.
Punch press, No. 2 Cons., flywheel.
Punch & shear, No. 4 Long & A., double end, 24" throats.
Punch presses, all sizes, (55).
Punch and riveter, new Doty, 30" stake.
Riveter, 3/16" Grant, on column.
Riveter, air, 6' gap Allen, cap. 1½".
Riveter, air, 6' Allen, cap. ⅝".
Saw, No. 7K Atkins Kwick-Kut.
Rolls, 4' drop end corrugated.
Saw, Q. M. & S. No. 4-B universal, 33" blade.
Shear, 52" P. S. & W. pwr. squaring.
Shear, 8' Ohl, No. 20 ga.
Slotter, 14" Niles.
Slotter, 3½" Rhodes vertical.
Tire press, hyd., 60-ton Defiance.
Tooth rounding machine, S. & S.

Send for our latest 44-page illustrated Catalog and Price List.

USED AND REBUILT MACHINERY

FOR SALE BY

J. Bleser Mfg. Co., 16th & Madison Sts., Springfield, Illinois

Lathe, Niles B. 36x12, standard change gears.
Lathe, Bridgeport 26x12, standard change gears.
Lathe, Prentiss 30x16, standard change gears.
Lathe, engine, 16x8 G. & K., q. c.
Lathe, 14"x6' Monarch, q. c.
Miller, No. 2 Hendey universal.
Miller, Cinti, No. 3 univ., O. type.
Millers, bench, No. 3 Burke; Rockd.
Radial drill, 5' Bickford.
Shapers, Smith & Mills, 16", 12".

FOR SALE BY

Miles Machinery Co., • • Saginaw, W. S., Mich.

Automatics, Nos. 00 Brown & S.
Automatics, Nos. 6A Potter & J.
Air compressors, 830 Union, late type
Bender, No. 4 Hilles & Jones, beam.
Drill, 2½' Cincinnati Bickford radial.
Drill, 12-spindle No. 30 Natco.
Grinder, 18"x96" Norton, s. p. d.
Grinder, 84" Diamond, face.
Keyseater, Nos 4 & 6A Mitts & M.
Lathes, turret, 21" & 24" Gisholt.
Lathes turret, Nos. 2A and 3A Warner & Swasey.
Mill, boring, 53" Niles-Bement-P.
Mill, hor., 2" bar, No. 1 Lucas.
Millers, plain 2BS & 2B Milwaukee.
Millers, universal, Nos. 1, 1½, 2 and 3 Brown & Sharpe.
Miller, vertical, No 4 Cincinnati.
Miller, duplex, 18" Cincinnati.
Planer, 36"x36"x10' Cincinnati.
Planer, 48"x48"x12' Pond.
Press, Nos. 65 & 66 Consolidated.
Pump, 1000 gal. Underwriters Fire.
Shaper, 20" Queen City.
Shear, ¼" Kling, plate splitting.
Threaders, ½", 1", 1½" and 4" Landis.

FOR SALE BY

Norton-Broadway Mchy. Co., Sixth & Baymiller Sts., Cincinnati, O.

Good Machine Tool Bargains.

BORING MILLS.

36" Bullard, turret and side head.
42" Bullard, 2 rail heads.
48" Niles, 2 rail heads.
36" Niles, 2 heads.
36" American, 2 heads.
56" Bickford, 1 head.

MILLING MACHINES.

2B Brown & Sharpe, heavy.
No. 3 Brown & Sharpe vertical.
AB Becker vertical.
No. 4 Brown & Sharpe universal.
3—Cincinnati universals, No. 4, no dividing head, $785.

GEAR CUTTERS AND HOBBERS.

28" Brown & Sharpe.
No. 13 B. & S., spur and bevel.
20" Gould & Eberhardt hobber.
No. 4—36" Brown & Sharpe.
20" Gould & Eberhardt hobber.
No. 12 Barber-Colman.

SHEARS AND PRESSES.

Style A Long & Allstatter, shear, 48", ⅜" and lighter.
6' Bertsch shear, 18 gauge.
No. 19C Bliss, inc.
6' Robinson brake, power.
8' Robinson brake, power.
No. 30 L. & A. incl., 2250 lbs.
No. 30-A Bliss, motor drive.
Niagara horning press.
No. 1 Long & A. punch and shear.

SHAPERS.

15" Ohio crank; 15" Potter & Johnson crank; 16" Cincinnati, crank, 16" Queen City, crank, 20" Smith & Mills, single pulley; 24" Queen City, single pulley. 25" Smith & Mills crank; 28" Hollingsworth, single pulley.

GRINDERS.

18"x96" Norton plain cylindrical.
6"x20" Webster & Perks.
No. 2 Oakley univ. cutter and ream.
16"x72" Brown & Sharpe.
LeBlond No. 1 cutter and reamer.
14" Pratt & Whitney vertical.

MISCELLANEOUS.

Automatic, 6-spindle New Britain
Gridley, 4-spindle, ⅞".
Gridley 4 spindle, ⅞".
J. & L. 2-spindle, geared.
Hammer, 90 lb. Williams & White.

Send for the new catalogue.

USED AND REBUILT MACHINERY

FOR SALE BY

Mid-West Machine Tool & Supply Co., Davenport, Iowa

Automatic, 3/8"-1 1/2" Cleveland.
Automatics, full, No. 2, No. 0 and No. 00 Brown & Sharpe.
Drills, 4-spdl., 12" and 14" L. & G.
Drills, 6-spindle Allen, h. s.
Gear cutter, 4" Waltham, (new).
Grinder, No. 10 B. & S. plain.
Grinders, surface, No. 22, Heald.
Hobber, No. 4 Adams.
Miller, No.13-B B. & S., production.
Radial, 4' American sensitive.
Screw machines, No. 2 B. & S., p. f.

Partial list; send us your inquiries.

FOR SALE BY

Marr-Galbreath Machinery Co., 58 Water St., Pittsburgh, Pa.

Air compressor, 8x8 Chicago, n.s.b.
Bolt cutter, 1 1/2" Morgan, double hd.
Bolt cutter, 1 1/2" Acme, triple head.
Boring mill, 24" Bullard, side hd. m.d.
Boring mill, 42" Bullard, 2-heads.
Boring mill, 16' to 36' Niles extension.
Boring mill, 144" Betts, 2 hds., m.d.
Boring machine, Rockford No. 2 horizontal, 3 1/2" bar.
Bulldozers, Nos. 2, 4, 5, 6 & 28, W.-W.
Channeling mach. No. 3C, K&R.
Derrick, steel, stiff lg. 15-ton, 60' boom.
Drill, 24" Sibley-Ware b. g.
Drill, radial, 4' Bickford, g. b.
Drill grinder, "WPEL," 3/60/220.
Forging mach., 3" Acme, steel, m. d.
Forging and rivet header, 1" Ajax.
Gear cutter, No. 6 Brown & Sharpe.
Grinder, cylinder, Hoenig, portable.
Grinder, No. 18-D Rowbottom.
Grinder, No. 24 Landis, 16"x48".
Grinder, No. 60 Heald, 19" arm.
Hack saw, Atkins, cap. 8"x8".
Hack saws, No. 5 Marvel.
Hack saw, 12x15" Racine, g.b., m. d.
Hammer, 2500 lb. Chbg., s. f. steam.
Hammer, 3000 lb. Chbg. dbl. frame.
Hammers, stm. s. f. 600, 1100, 1500 lbs.
Hammers, 40 lb. and 80 lb. Bradley.
Keyway cutter, 24" Morton, cap. 2 1/2".
Lathe 10'x8 1/2' Myers, chuck att.
Lathe, 12xx5' Star, q. c. g., chuck.
Lathes, 18"x8' L. & S., q. c. g., g. h.
Lathe, 24"x14' Porter, plain change.
Lathe, 26"x10' Walcott, q.c.g., d.b.g.
Lathe, 24"x10' Putnam, taper attach.
Lathes, 48"x36' Niles, belt or motor.
Miller, vertical "C" Becker, s. p. d.
Miller, No. 2 B. & S. univ., index hd.
Milling mach., No. 3-B. Milwaukee.
Milling mach., Oesterlein, univ. No. 2
Milling mach., No. 0., Kempsmith universal.
Milling mach., duplex Knight, table 8 1/2"x32".
Motor, 8 1/2 h.p. 220 v., d. var. sp.
Mtr., 25 h.p. West. 3/60/220-440/1200.
Motor, 7 1/2 h. p. West. 3/60/440/1200.
Motor, 10 h. p. Crocker-Wheeler, 3/60/1200.
Motor, 1 h. p. West. 3/60/440/1200.
Mtr., 1/2 h.p. West. 1/60/110-220/1725.
Oil separators, 1/2 & 1 1/2 bu. cap.
Pinion cutter, No. 3 S. & C. 1"x1".
Pipe machine, 6" Jarecki, s. p. d.
Pipe machine, 10" E. C. & B.
Pipe machine, 6" Oster, with dies.
Planer, 48"x48"x16' Pond, 4-hds., m.d.
Planer, 24"x24"x6' Gray, 1-head.
Press, No. 52 Ferracute, punch, m.d.
Press, 90 1/2 Toledo b. g. d. c., 8" str.
Punch, 30" thrt., 1"x1" m. d., s. e.
Punch and shear, 30" throat, cap. 5/8"x5/8", s. e.
Punch, coping, steel plate, 13" thrt. 36" die space, 2 holes 1"x1", m. d.
Radial drill, 2 1/2' Fosdick, t. a.
Radial drill, 3' Dreses-Mueller.
Radial drill, 4' Dreses Simplex.
Riveter, Allen, pneumatic, 24x16x10.
Riveter, Allen jaw, 36" cap. 1 1/2".
Riveter, 3/4" Shuster rotary, belt.
Riveter, 80 A. Grant, 1/2" cap. belt.
Roll, bending, 6'x1/4" Bertsch, d. e.
Rolls, bending, 66"x3/16" Bertsch, d.e.
Rolls, bending, 50" Badger, latch.
Saw, cold, Wagner, cap. 16" blade.
Saw, Burke, 12" blade, capacity.
Screw mach., 8" & 10" P. & W. pl., w.f.
Shaper, 16" Am., b. g., crank.
Shaper, 24" Niles-Bement-Pond, cr.
Shear, squaring, 66x3/16" Kutscheid.
Surface plate, 48"x18"x2-8"
Shear, rotary, Quickwork 1/4" ga., 36" throat, with 60" circl. attachment, motor, 3 ph., 60 cy. 220 v.
Turret lathe, 13" Gisholt, 24" h. s.
Turret lathe, 4 1/2 x 30", B. & O., geared head, m. d.
Turret lathe, 28" Gisholt, 3 1/2" h.s., t.a.
Turret lathe, 2" x 24", J. & L., s. p. d.
Turret lathe, 18" W. & S. friction hd.
Vise, 8" Columbian, plain.

WOODWORKING MACHINES.

Borer, Smith post, No. 451.
Cut-off saw, sw., F. & E. No. 75, m.d.
Jointer, Woods, 8".
Lathe, 18"x12', F. & E., iron bed.
Lathe, F. & E. No. 35 auto bk. kf. ga.
Saw filer, band, Wardwell, "K".

FOR SALE BY

McMullen Machinery Company, - - Grand Rapids, Mich.

Automatics, 4" Cleveland, (2).
Automatics, No. 72 Nat. Acme, (2).
Grinder, No. 6-A Bryant.
Grinder, Gisholt universal.
Grinder, D-4-T G. R. drill.
Lathe, 18x9 Chard.
Miller, P. & W. 4" spline.
Miller, W. & S. 2-spindle.
Miller, No. 3 Kempsmith plain.
Pipe machine, 6" Merrill.
Rotary shear, No. 14 Pettingell 30".
Unishear, style "A".
Welder, A. EF Type MW-4.
Welders, No. 10-A Thomson, (5).

Ask for complete list.

FOR SALE BY

Bennett Machinery Co., - 30 Church St., New York City

Boring mill, 96" Betts, m. d.
Boring machine, 4" Betts, knee type.
Boring mch., 2½" Fitch., knee type.
Lathe, 26/48"x18' McCabe, dbl. sp.
Lathe, 26/48"x14' McCabe, dbl. sp.
Lathe, 24"x12' S. & B.....$500.
Lathe, 26"x14' R. C., 5 step cone.
Lathe, 24"x12' Amer.,q.c.g.8st. cone.
Lathe, 20"x15' Reed, 11' centers.
Lathe, 18"x10' Flather, q. c.
Lathe, 18"x8' Greaves-Klus., q. c. g.
Lathes, 16"x8' Davis.....$250.
Miller, vert. 42"x14' No. 5B Becker.
Multi drill, 6 sp. Baush in circle.
Pipe mch., 8" Saund., m.d.4 yrs. old.
Pipe mch.,4"Landis,m.d. equal new.
Pipe mche., 4" Curtis & Curtis m.d.
Radial drill, 3½' Mueller, g. b. tap.
Radial drill, sens., 3' American, tap.
Radial drill, 6' Pond, belt. type,hvy.

FOR SALE BY

McDonald Machinery Co., 1531-33 N. Broadway, St. Louis, Mo.

Air compressors, Bury 12x12.
Arbor presses, Eames No. 6.
Bolt threader, Acme 3 hds. 1½" cap.
Chain hoists,Yale & Towne1½ & 2-ton
Demagnetizer, Walker.
Disc grinder, double, Besly No. 14.
Drill, Baush 18-spindle.
Drills, Baker.
Drills, Leland-G.1,2&3spdl.,h.s.,b.b.
Drills, H. & W., Kokomo 1-spdl., Sipp 1 & 2-spdl., h. s., b. b.
Drills, 20", 24", 26 & 28" b. g., & tap.
Filing machine, Rearwin, floor type.
Furnace, Holcroft 92 k. w. annealing.
Gear cutter, No. 3 B. & S., 26".
Gear hobbers, Barber-Colman No. 12.
Grinder, Herald No. 60 cylinder.
Grinders, Ott 5x18"; Blount, 20" wet, (3); Landis No. 1 universal; Modern inte.; LaSalle No. 2 surf.
Hack saws, 4x4, 6x6 & 2 Racine Jrs; Atkins 4x4"; Racine 6x6", h. s.
Keyseaters, Davis No. 1 with cutters; Mitts & Merril No. 3.
Lathes, South Bend 24"x14'; South Bend 21"x12" q.c.g.; Davis 22"x10'; L. & S. 16"x6'; LeBlond 19"x8'; q. c. g. American 20"x9'; Monarch 16"x8', all g. c. g.; 40 other assorted sizes; also Porter-Cable.
Milling machines,Kempsmith No. 2; Ohio No. 20 plain; Becker "SD" vertical, rotary table, 17300 lbs.; American No. 1½ universal; B. & S. No. 3 vert., s.p.d., with rotary tbl.; Ohio 34; LeBlond No. 3-H plain; Brown & S. No. 3 pl.; Cincinnati; No. 2 pl. and Becker No. 4-B vert; B. & S. No. 3 B plain, s. p. d.; Kempsmith No. 3 universal; No. 1 Kempsmith plain; Kempsmith No. 2 universal.
Pipe machine, Curtis 3", motor dr; Merrill 4" belt drive; B. & K.8".
Planers, Gray 28"x28"x6', 1 head; Sellers 36"x36"x23', 2 heads.
Punches, Wetterhahn 18", throat ½" in ½"; Williams & White No. 15, double end punch and shears; W. & W. No. 17 punch and shear.
Punch presses, Bliss No.18C; Toledo No. 1; Swaine No. 29 o. b. i. Willard No.4-A o.b.i. Bliss No.20.
Pyrometer, Thwing elec., with rec.
Screw machine, Gridley 1-spdl. 2½" auto.; Cleveland 1½" auto.; P. & W. No. 2½ hand; Foster No. 3 hand; Woods No. 2 tilted turret head; Foster No. 0; Bardons & O. No. 7; National-A. No.82 auto.,4-sp.,m.d. B. & S. No. 00 automatic.
Shapers, Whipp 16" and 20"; Cinti. 20", b. g.; Ohio 20"; Ohio 16"; American 16" b. g.; S. M. 16"; Steptoe 14" Barker 24" b. g.; American 24" b. g.
Square shears, Kutschfield 30" and 60" 14 ga, power.
Shears, 60" thrt. rotary slitting, (2).
Welders, butt, Federal, ½" rds.

USED AND REBUILT MACHINERY

FOR SALE BY

The Reeve-Fritts Co., 558-560 W. Washington Blvd., Chicago, Ill.

Die filer, No. 3 Barry, floor type.
Die miller, Thurston.
Grinder, No. 1 B. & S., universal.
Grinder, No. 103 Rivett internal.
Grinder, No. 3 Oakley, surface.
Grinder, No. 183 Wells, cutter and tool.
Lathe, 9"x12" Sundstrand prod.
Lathe, No. 5 Mosely bench prec.
Lathe, 11"x5' Star, c. r.
Miller, 12" Leland h. s., router.
Miller, No. 3 Oesterlein plain.
Miller, No. 4 Fox plain.
Miller, No. 2 Rockford, plain.
Pipe machine, 6" Merrill, m. d.
Pipe machine, 12" Curtis & Curtis.
Planer, 9"x7"x24" Federal bench.
Press, No. 3 American Can, o. b. i.
Press, No. 3-A American, Can, o.b.i.
Shaper, 16" Economic, crank.
Turret lathe, No. 2 Garvin.
Turret lathe, No. 3 Foster, pl. head.

FOR SALE BY

Tubor, Velick & Co., Inc., - - 628-630 W. Lake St., Chicago, Ill.

Telephones: Monroe 4199-6813. No Branches

PLANERS.

24"x24"x 8' American, 2 heads.
24"x24"x 6' Ohio, 2 heads.
36"x36"x10' Rockford, 2 heads.
30"x30"x12' Niles-B.-P., 2 heads.

SHAPERS.

16" Rockford, s. p. d.
22" Ohio.
14" Ohio.
24" Milwaukee.

PUNCH PRESSES.

No. 0 V. & O.
No. 6 Niagara geared.
18-C Bliss.
No. 21 Bliss.
No. 2 Rockford.
No. 33 Swaine geared.

MILLING MACHINES.

No. 2½ Rockford univ. vert. head.
No. 4 Kempsmith plain.
No. 2 Cleveland universal, s. p. dr.
No. 2 Brown & Sharpe.

DRILL PRESSES.

3' Mueller radial.
4' Bickford.
1-spindle Avey h. s., b. b.
2-sp. Canedy Otto b. g., p. f. (new).
2½' Dreses.
4 Ryerson.
3-spindle Avey h. s., b. b.
Bench type drills.

LATHES.

14"x 6' Rockford, q. c. g.
14"x 6' Hendey q. c. g.
14"x 6' American q. c. g.
14"x 8' Hamilton q. c. g.
18"x 6' Rockford q. c. g.
16"x 8' Springfield. q. c. g.
16"—12"—14" Shephard q. c.
20"x 8' Whitcomb-Blaisdell q. c. g.
12"x 5' Hendey q. c. g.
16"x 6' Sidney, q. c. g.
16"x 8' Monarch, q. c. g.
17"x 9' Chard, q. c. g.
18"x 6' Lehmann, q. c. g.
24"x10' Canadian, q. c. g., d. b. g.
24"x10' LeBlond, extra turret att.
3—⅝" Hardinge bench, in unit.

GRINDERS.

No. 78 Wilmarth & Morman surface.
Yankee tool cutter.
Rivett internal.
Canedy-Otto.

SCREW MACHINES.

⅝" Gridley automatic, 4-spindle.
⅝" Pratt & Whitney hard.

WOOD-WORKING MACHINERY.

Boring mills, Andrew.
Yates moulders, C3-C4.
Shapers, double spindle, Advance, 5 h. p., a. c., motor in base.
Shapers, double spindle, Whitney and Fay.
Porter, Swing saws,
Band saws.

MISCELLANEOUS.

Chain Hoist 1—5 ton capacity.
Vises, Parker or Reed.
Winfield spot welder
Hardinge gear cutter.
All steel anvils.
Sheet metal machinery.
Time clocks, International.
Hack saws.

A complete line of New and Used A. C. and D. C. Motors.
Leather belting. Pulleys, shafting and hangers.
We are carrying a full line of Canedy-Otto and Champion products.
Only a partial list. Send in your inquiries.

USED AND REBUILT MACHINERY

FOR SALE BY

United Mchry. & Supply Co., 4640 Newberry St., St. Louis, Mo.

Automatic, Cleveland, 2½ capacity.
Bulldozer, Rock River 20" stroke.
No. 1-B Foster.
Grinder, abrasive, No. 3, 22x8x12.
Keyseater, Burr No. 5, motor drive.
Miller, rectangular arm, No. 4.
Miller, No. 2 Kempsmith univ.
Miller, No. 33 Kempsmith prod.
Punch, R. R. double end, ¾" thru ½".
Shaper, 20" American, used 6 mos.

FOR SALE BY

Foster Machinery Company, 10203 Quincy Ave., Cleveland, O.

Band saw, 24" woodworking.
Bolt cutter, 1½" Acme.
Boring mill, vertical, 42" Bullard.
Lathe, 16"x6' Monarch.
Miller, No. 00 Brown & S., hand.
Press, No. 3 Stiles.
Punch, EF Cleveland, 72" thrt., m.d.
Riveter, High Speed 2A.
Shear 12'x14 ga., Loy & Nawrath.
Shear, 54"x¼" Bertsch, 15" throat.
Shear, alligator, Canton, cap. 1½" sq.
Shear, 36"x18" gap, foot.
Trolleys, I-beam, 1 & 2 ton.

FOR SALE BY

Reliance Machinery Sales Company

1405 Brighton Road, • • • N. S. Pittsburgh, Pa.

Automatics, Nos. 52 & 55 Acme.
Blower, No. 5 Champion, 6¾" outlet.
Blower, Amer. pressure, 461 cu. ft.
Bolt cutter, ¾" Acme, class"A,"2-sp.
Bolt cutter, 1½" Acme, double head.
Bolt cutter, 2½" Acme, single head.
Boring mill, No. 44 D. & H., floor type, 3½" bar.
Boring mill, Niles horiz., 4½" bar.
Boring mill, 24" Colburn, 1 head.
Boring mill, 42" Bullard, 2 heads.
Boring mill, 51" Niles, 2 heads.
Boring mill, 62" Bullard, 2 heads.
Bulldozer, No. 4 Williams & White.
Brake, 48" Keane, capacity ½".
Broach, No. 3 LaPointe.
Buffers, 10 h. p. 220-3-60, 3600 r.p.m.
Car wheel borer, 42" Ridgeway.
Cutting-off machine, 6" Hurlburt-R.
Drills, 26" Barnes, sliding head.
Drills, 36" Snyder, sliding head.
Gear cutter, 36"x10" G. & E., s. p. d.
Gear cutter, No. 13 Brown & Sharpe.
Grinder, Oliver drill, ½" cap., m. d.
Grinder, w.p.l. New Yankee, cap. 2½".
Grinders, Nos. 11 & 12 B. & S. pl.
Grinder, 12"x24" Modern plain.
Grinder, No. 16 Besly, double disc.
Hammer, 2-A High Speed, m. d.
Hammer, 80 lb. Bradley cush. helve.
Hammer, 300 lb. Bradley upright.
Keyseater, No. 1 Davis, cap. 1/16 to 1"
Keyseater, No. 3 Mitts & Merrill.
Lathe, 12"x 6' Seneca Falls, q. c. g.
Lathe, 12"x10' Davis tool rm., q. c. g.
Lathe, 14"—28" Fay & Scott gap.
Lathe, 14"x 6' Seneca Falls, q. c. g.
Lathe, 18"x10' W.-B., g. h., s. p. d.
Lathe, 20"x10' Hendey, g. h., m. d.
Lathe, 24"x12' Boye & Emmes, q. c. g.
Lathe, 30"x12' Boye & Emmes, q. c. g.
Miller, No. 1 Knight drilling.
Miller, No. 3 Kempsmith plain, v. s.
Miller, No. 4 Hendey plain, s. p. d.
Miller, No. 4 Brown & Sharpe univ.
Miller, No. 5 Cincinnati pl., s. p. d.
Miller, Gooley & Edl. Briggs type.
Motor, 5 h. p. Wagner, 220-1-60.
Motor, 3 h. p., Wghse., 220-1-60.
Pipe machine, ½" to 2" Williams.
Pipe mchc., Jarecki 1½" to 6", m. d.
Pipe mchc., E., C. & B., 2½" to 8".
Pipe machine, Merrill, 2½" to 12".
Press, 30-ton Lucas forcing.
Press, Ferracute DD2, o. b. i., cam.
Press, No. 54 Toledo trimming.
Press, No. 175 Cons., 3½" str. geared.
Press, No. 5½ Consolidated, o. b. i., geared, 3" stroke.
Planer, 30"x30"x8' Cleveland opens.
Planer, 30"x30"x12' Gray, 1 head.
Planer, 48"x48"x12' Betts, 3 heads.
Punch, Wickes, 48" thrt., cap. 1½"x1".
Radial drill, 3' Fosdick, cone drive.
Radial, drill, 4' Bickford, g. b., s.p.d.
Radial drill, 6' Bickford plain.
Saws, No. 5 Marvel high spd., 6x6, (2).
Saw, band, 36" American.
Saw, cold, 14" Cochrane & Bly.
Saw, Racine 6x6 high speed, sp. box.
Saw, 9"x9" Peerless high speed.
Saw, American metal swing, m. d.
Shaper, 24" Cincinnati, b. g. crank.
Shaper, 24" Gould & E., b. g., crk.
Shear, 96"x16 ga. Stoll squaring.
Shear, 120"x¼" Garrison squaring.
Tapper, ½" Webster & Perks, 1-spdl.
Tapper, 1½" Webster & Perks, 2-spdl.

Our warehouse is full of bargains. What have you for sale?

FOR SALE BY

Allegheny Gear Co., - -

Blowers, pressure, Amer. Champ.
Broaching mche., No. 3 LaPointe.
Drill, 2-D Colburn, 24" swing 2½".
Drill, radial, 5' Reed-Prentice.
Forging machine, 2½" Ajax.
Furnaces, heat treating, annealing.
Gear cutter, No. 3A Cincinnati.
Gear cutter, No. 12 Brown & Sharpe.
Gear shapers, "Fellows" 62, 612.
Gear generators, Gleason bevel, 11", 15".
Grinder, No. 20 Bryant chucking.
Grinder, Landis 12"x66" plain whls.
Grinder, No. 70 Heald internal.
Grinders, wet tool, emery, etc.
Hammers, steam drop, 3000, 2500, 2000, 1500, 1000, Erie, Chambs.
Hammers, steam forging, 2500 double frame 1500, 1100, 800, single frame.
Hoists, portable, Crane.
Lathe, 32"x14' Bridgeford, g. h., t. a.
Lathe, 26"x16' 6" Gleason, d. b. g. c. r., t. a.

1011 Empire Bldg., Pittsburgh, Pa.

Lathe, 26"x10' Walcott, d. b. g., q. c. g., c. r., t. a.
Lathe, 26"x9' Bridgeford, rev. gr hd.
Mill, No. 12 9" for variable sections.
Miller, No. 4 Brown & Sharpe univ.
Miller, No. 3 Pratt, hand feed.
Miller, No. 4 Pedrick, portable, 12".
Miller, slab, 22"x22"x8' Ingersoll.
Motors, 15, 20, 30, 50 h. p., a. c.
Planer, Bickett 36"x36"x12", m. d.
Presses, No. 56 Toledo, trimming.
Presses, No. 74½ Bliss, trimming.
Sand blast, MacLeod, compl. unit.
Saw, cold, Newton 40" blade, motor.
Shapers, 28" G. & E. Invincible.
Shaper, 24" G. & E. high duty.
Shear, No. 4 Doelger Kirsten, alligator.
Shear, No. 0 Hilles-J., guillotine.
Shear, No. E Long-Alls., guillotine.
Shear, No. 7 Hilles-Jones, comb. punch & shear.

FOR SALE BY

The Randle Machinery Co.,

Arbor press, Falls screwed type.
Automatic, 2¼", 3½", 4½" Gridley.
Bolt cutters, 1", 1½", 2" Acme.
Bolt cutters, 1½" Landis.
Boring mill, 42" Billard.
Boring mill, 60" Pittsburgh.
Boring mill, 50" Niles.
Boring mill, 84" Bickford.
Boring mill, 10' Pond.
Drill, 20" Rockford, t. a.
Drill, 20" Barnes upright.
Drill, 24"-28" upright.
Drill, 2' American plain radial.
Drill, 3' American plain radial.
Drill, 3½' Fosdick plain radial.
Drill, 3½' Cincinnati-Bickford plain.
Drill, 4' Morris plain radial.
Drill, 4' Bickford plain radial.
Drill, 3' Fosdick plain, cone drive.
Gear cutter, No 3-H 24" B.&S., auto.
Grinders, 12", 16"x48" 72" new Queen City.
Grinders, 18"x96" Norton plain.
Grinder, No. 2 Hartford surface.
Hammer, No. 5, 125 lb. Beaudry.
Hammer, No. 1½ Standard 150 lbs.
Hammer, 25 lbs. Bradley helve.
Keyseaters, Nos. 1 & 2 Davis.
Lathe, 14"x6' American q. c.
Lathe, 14"x6' l. c. & q. c.
Lathe, 16"x6' LeBlond l. c., t. a.
Lathe, 16"x8' new American q.c., t.a.
Lathe, 18"x10' LeBlond, q. c.
Lathe, 24"x12' LeBlond q. c.
Lathe, 24"x12' Blaisdell q. c.

1733 Powers St., Cincinnati, Ohio

Lathe, 24"x12' Lodge-Davis, l. c.
Lathe, 24"x14' Pond, l. c.
Lathe, 27"x18' Lodge & Shipley, q.c.
Lathe, 24"x24' Fifield, l. c.
Lathe, 28"x16' Bradford, l. c.
Lathe, 30"x30' Gleason l. c.
Lathe, 36"x16' Lodge-Shipley, q. c.
Lathe, 36"x30' American, grd. head.
Lathe, 48"x20' Pond l. c.
Lathe, 44"x22' Fifield l. c. lathe.
Milling mach., No. 2 Cinti., univ.
Milling machine., No. 2 B. & S., universal, vertical attachment.
Milling machine, No. 3 B. & S. univ.
Milling mach., No. 2 B. & S., pl.
Milling mch., No. 4 Cincinnati pl.
Milling machine, No. 2B & No. 3B Brown & Sharpe plain.
Planer, 36"x36"x12' D. & H. openside
Planer, 48"x48"x16' D. & H. openside
Planer, 42"x42"x8' Sellers.
Planer, 30"x30"x12' Cincinnati.
Planer, 38"x8' and 36"x12' Gray.
Shaper, 14" Steptoe, plain.
Shaper, 16" Rockford b. g.
Shaper, 16" new Queen City.
Shaper, 24" Cincinnati, b. g.
Shaper, 24" Hamilton b. g.
Shaper, 28" new Queen City.
Shaper, 32" Smith & Mills.
Pipe machine, 4" Oster.
Pipe machine, 6" Curtis.
Pipe machine, 6" Saunders.
Pipe machine, 12" Landis.
Wheel press, 200 ton Caldwell.

Above only partial list of our stock.

USED AND REBUILT MACHINERY

FOR SALE BY

Kohler Die & Specialty Co., ... DeKalb, Ill.

1—Furnace, heat treating, No. 10 Stewart, good condition.
1—Welder, electric, Type No. 140 Toledo, capacity 2½" sheets.

FOR SALE BY

John Ramming Machine Co., First St. & Clark Ave., St. Louis, Mo.

Automatics, 2-No. 10 P. & J.
Bolt cutter, ¼" to 1" Wells Bros.
Drill, No. 513 Baker 5" cap.
Drill, 38" Aurora, sliding head.
Drilling and boring mchs., Barnes with 24" dia., worm geared, rotary table.
Gear shapers, 2-36" Fellows.
Grinders, 2-10"x22" Norton.
Hammer, No. 2 Bell, steam.
Lathe, 20"x19" Wickes, h. d., q. c.
Lathe, 20"x8" Lodge & S., q. c.
Miller, No. 4 Cincinnati plain.
Miller, No. 2 Cincinnati plain.
Turret lathe, 3x36 J. & L.
Turret lathe, 2x24 J. & L.

Air compressors, boilers, engines, generators, pumps, etc.

FOR SALE BY

J. C. Ross, ... Lorain, Ohio

Air compressor, 10x10 Ingersoll-Rand Class M. E. I., 36"x72" air tank...$300.
Automatic cutter, 36" Becker-Brainerd with all gears..... 300.
Blanking Press, large Farrell Foundry & Machine Co., about 100" between housings, 8" crankshaft, double pitman, 2½" stroke, heavily back geared..... 1200.
Bolt cutter, 1½" Acme, full set taps & dies, lead sc ew, very good cond. 175.
Boring machine, automobile cylinder, Beaman & Smith, 2-spindle, with countershaft..... 150.
Boring mill, 3077 Rockford, o. s., 3" spindle, 24x42" table, double friction countershaft..... 300.
Drills, No. 5 Fox, multiple spindles, double heads, q. c g , cast iron box type, extra table, one having ten three-fourths spindles, condition very good, (2), the pair..... 1000.
Gear hobbing machine, Lees-Bradner, with gears and countershaft..... 200.
Grinder, Gisholt automatic, power, belt drive..... 100.
Grinder, No. 2 Landis universal, complete with countershaft..... 300.
Lathes, Fitchburg 3½x8 Lo-Swing, r. and p. feed, all attachments; 3½x6 Lo-Swing, head and c. s., 24x10 steel pulley, very good condition, ea. 150.
Lathe, engine, 27x10' heavy Fifield, four-jaw chuck..... 200.
Milling machine, Brown & Sharpe old style, complete with index head, vise, arbors and some cutters..... 250.
Piston and piston ring turning machine, Gridley semi-auto., with c. s..... 300.
Screw machine, Chicago, very good operative condition..... 100.
Slab miller, Ingersoll 24x24x12 , serial No. 771, 1 vertical head, 2 side heads, pump, countershaft, condition very good..... 1000.
Turret lathes, 3x36 Jones & Lamson flat, equip. for boring and chuck work, double friction countershaft, very good order, (4) each..... 150.
Turret machine, small Warner & Swasey, some parts missing..... 75.

WOODWORKING MACHINES.

Band saws, 36", in good operative condition, (2) each.....$ 50.
Jointer, 8" universal..... 75.
Jointer or woodworker, 16" J. A. Fay Co. univ. round and square head 175.
Molder, 8" 4-side, J. A. Fay complete, very good working condition ... 150.
Rip and cut-off saw, iron frame..... 75.

A great lot of other machinery, too numerous to mention.

FOR SALE BY

Henry Prentiss & Co., 439 Communipaw Ave., Jersey City, N. J.

Bolt cutter, 2" Acme, double head.
Bolt header, 2½" Acme.
Boring mill, 24" Bullard, New Era.
Boring mill, 42" Bullard, power rapid traverse.
Boring mill, 102" Poole.
Boring mill, No. 1 Lucas horizontal.
Broaches, Nos. 1 & 4 LaPointe.
Drill, No. ½ Avey 2-sp., b b., bench.
Drill, No ½ Avey, sgl.-spdl., b.b., col.
Drills, 24" & 32" Cincinnati.
Drill, No. 25 Foote-Burt high speed, ball bearing.
Drill, 5' Dreses radial, s. p., b. b.
Drill, 6' Cincinnati-Bickford plain radial, s. p., g. b.
Drill, 11' Lynd-Farquhar (wall).
Drill, No. 30 Natco multi spindle.
Drill, 26" Barnes all-grd., 4-spindle.
Gear cutter, 6" Gleason generator.
Gear cutter, 36 BM. Gould & E.
Grinders, 3"-6"-10" Norton plain.
Grinder, 12" Cincinnati universal.
Grinder, No. 60 Heald cyl.
Grinder, No. 6 Besly disc.
Grinder, 16"x48" Cincinnati univ., auto-parts.
Lathe, 14"x10' L. & S., s. p. or m. d.
Lathe, 16"x 8' LeBlond.
Lathe, 20"x12' American, s.p. or m.d.
Lathe, 24"x10' Lodge & Shipley.
Lathe, 30"x12' L. & S s. p. or m. d.
Lathe, 38"x20' Schumacher-Boye.
Lathe, 28"-44"x16' McCabe, dbl. sp.
Planers, 24"x 6 & 8' Ohio.
Planer, 48"x12' Powell.
Planer, 60"x44"x12' Pond.
Press, No. 2½ Billings & Spencer trimming, slide cutting attach.
Press, No. 5 V. & O. incl.
Screw machines, auto. ⅞", 3¼", 4½" Gridley.
Screw machines, auto. ⅞", ⅝", 1¼", 2⅜".
Shapers, 16", 20" & 24" Cincinnati.
Shaper, 16", 20" and 24" G. & E.
Shaper, 26" S. & M., h. d.
Turret machines, 1¼", 2¼", 3½" Acme.
Turret machines, 2½" & 3½" J. & L.

Partial list only. Inquiries addressed to
439 Communipaw Ave., Jersey City, N. J. will receive prompt attention.

FOR SALE BY

Fitzsimmons & Cole Machinery Company
1208 House Building, - - - Pittsburgh, Pa.

Air compressor, 8x8 Bury, 129 ft.
Bolt cutters, 1½", 2", 2½", 4" Landis.
Boring mills, 30" to 16'.
Bulldozer, No. 27 W. & W.
Crane, 10-ton Morgan, 96' span.
Drills, 14" to 38".
Drill, radial, 6' Prentice, s. p. d.
Flanger, McCabe, ½" capacity.
Gear cutters, spur and bevel.
Gear cutter, spur, No 6 B. & S.
Gear planer, 24" Gleason, bevel, b. d.
Grinder, No. 1 Landis, 10"x20" univ.
Grinder, 12"x96" Norton, b. d.
Grinder, No. 16 Blanchard.
Hammer, 100 lb. Bradley, upright.
Hammer, 150 lb Yeakley, pneumatic.
Hammer, 200 lb. Beaudry, upright.
Hammers, 2-B, 3-B & 4-B Nazel.
Hammers, steam 600 lb. to 3000 lb.
Keyseater, No. 0 Mitts & Merrill.
Lathes, 12" to 60".
Miller, univ., No. 3 Brown & S.
Miller, slab, 24x20x14' Ingersoll.
Miller, slab, 60x54x18' Ingersoll.
Pipe machines, 2½" to 12".
Planer, 36"x36"x10' Cincinnati, 2 hds.
Planer, 48"x42"x12' Cincinnati, 2 hds.
Planer, 48"x48"x16' Pond, 4 hds., b.d.
Planer, 96"x96"x20' Pond, 4 hds., m.d.
Planer, o s. 42"x42"x12' Detrick & H.
Planer, rotary, No. 2 Cleveland, 48" head.
Press, Ferracute P-1, 1½" stroke.
Press, geared, No. 34 Toledo.
Press, No. 37½ Bliss, s. s., 6" stroke.
Press, toggle, No. 1½ Bliss.
Press, wheel, 400-ton Niles.
Press, forging, 500-ton United hyd.
Punch, hor., Cleveland, 1" thru 1".
Punch & s., 30" thr., L. & A. 1½" thru 1".
Riveter, Hanna, 18" thrt., 15" gap.
Riveter, Allen, 66" throat, 15" gap.
Riveter, stake, No. 6 Whiting, 48" thrt.
Rolls, angle bending, 6x6x¾" K. & R.
Rolls, bending, 10'x¼", Bertsch.
Saw, cold, 48" Espen-Lucas.
Shaper, 24" Steptoe.
Shear, double angle, No. 1 L. & A.
Shear, alligator, Lewis 1½" square.
Shear, alligator, United, 5"x5".
Shear, bevel, Lennox ½".
Shear, guil. No. 0 H. & J., 1½" round.
Shear, guil. No. 3 H & J., 2½" square.
Shear, rot., No. 11½ Bliss, 3/16" cap.
Shear, rotary, No. 3 Quickwork ⅝".
Shear, rotary, No. 6 Quickwork ½".
Shear, squar. 10'x¼" Cincinnati, m. d.
Shear, squar. 7'x¼" Canton, b. d.
Shear, squar., 30"x18 ga. Toledo, b.d.
Shear, squar., 48"x14ga. Niagara, b.d.
Straightener, bar, No. 3 K. & R.
Straightener, beam, No. 4 H. & J.
Testing machine, 100,000 lbs. Riehle.
Upsetters, 1½" to 5".

FOR SALE BY

Taylor-Hall Welding Corporation, 3 May St., Worcester, Mass.

BUTT AND SPOT WELDERS

Guaranteed to be in perfect condition.

1 Toledo 141-A-24 spot welder.
1 Thomson 137 spot welder.
1 Thomson 2-A butt welder.
1 Thomson 8-A butt welder.
1 Thomson 10-A butt welder.
1 Thomson 20-A butt welder.
1 Thomson 40-A butt welder.
1 Toledo seam welder.

FOR SALE BY

W. P. Little Co., - - West 9th & Front Sts., Cleveland, O.

SHAPERS AND PLANERS.

24" Queen City b. g. crank.
26"x26"x8' Gray planer.

POWER HAMMERS.

50 lb. Bradley upright compact.
75 lb. Beaudry.

SCREW HEAD SHAVING MACHINES.

2 No. 2 Garvin screw head shaving machines, with screw feed.

BOLT CUTTERS.

$\frac{1}{2}$" Landis cone drive.
$\frac{3}{8}$" Acme rapid type.
1" Acme double reversing nut tapper for closed end nuts.

MISCELLANEOUS.

2" Pratt & Whitney spline miller.
15 ton metal wood hydr pneu. press.
S-24 Yoder rotary shear.
2"x24" Jones & Lamson turret.
$\frac{1}{2}$" Rickert & Shafer tapper.
No. 60 Heald cylinder grinder.
E. G. Ferracute geared arch press.
No. 13 Niagara circle shear.

150 other tools in stock. Send us your inquiries.

FOR SALE BY

Brownell Machinery Co., - 150 Pine St., Providence, R. I.

GEAR CUTTING MACHINES.

No. 3 Brown & Sharpe, 26x8, spur
No. 2 Bilton automatic gear milling machine.

GRINDERS.

No. 11 B. & S. plain, 4x30.
No. 12 Brown & Sharpe plain 7x36, s. p. d.
No. 2 Brown & Sharpe surface.
No. 1 Norton tool and cutter.
20" Blount wet tool.

LATHES.

30"x20' Fitchburg.
16"x 8' South Bend taper, gap.
16"x 8' Reed.
14"x8' Hendey tool room, taper.
Brown & Sharpe polishing & finishing.

MILLING MACHINES.

No. 4-A B. & S. univ. s. p. d.
No. 1$\frac{1}{2}$ B. & S. universal.
No. 20 Oesterlein universal.
No. 4-B heavy B. & S. plant m. d.
No. 3 g. h. LeBlond heavy plain.
No. 2 Brown & Sharpe vertical.

PLANERS AND SHAPERS

36"x36"x10' Woodward & Powell, heavy duty, m. d.
24"x24"x6' Whitcomb.
17"x17"x4' Whitcomb.
20" Smith & Mills shaper.

POWER PRESSES.

No. 1 Sidney o. b. inclinable.
No. 2-A Standard a s.
No. 4 Manville s. s. p. p.
No. 2-B Standard double action.
No. 1 Bliss d. a. cam.

SCREW MACHINES.

No. 6 Brown & Sharpe, g. f. h., 2".
No. 2 Bardons & Oliver, g. f. h.
1$\frac{1}{2}$x18 Pratt & Whitney.
No. 0 B. & S. plain head, wire feed.
3"x36" J. & L. flat turret.

MISCELLANEOUS.

Band saw, 12" H. & R. metal cutting.
Broaching mhe. No 1 J. N. Lapointe
Hammer, 125 lbs. Dupont, power.
Radial drill 3' Prentice Bros., s. p. d.
Slotter, 12" Bement-Miles.

FOR SALE BY

Brown Machinery Co., - - 2323 N. 9th St., St. Louis, Mo.

Beaders, No. 8 Pettingell, 42" thrt.
Blowers. Nos. 7 & 9 Sturtevant.
Buffer, Hisey, 3 h.p., 3-p., 60 c., 220 v.
Cut-off mchs., Nutter & Barnes.
Drill, 20" Canedy-Otto, b. g., p. f.
Drill, 22" Barnes, slid. hd., b. g., p. f.
Drill, 24" Aurora b. g., p. f., t. a.
Drill, No. 2 Barnes horiz. radial.
Drill, horiz radial, No. 3 Barnes.
Furnaces, Nos. 1 and 2 American.
Grinders, emery, St. Louis & Western, 100 new at 50% discount.
Grinders, drill, W. & M. American.
Grinder, pl. and surf., No. 1 LaSalle.
Grinders, tool, Diamond.
Grinder, tool post, Hisey.
Grinders, plain, No. 12 B. & S.; 10x36" Norton; 5x18" Ott.
Grinder, cylinder, No. 60 Heald.
Grinders, disk, No. 6 Besly; No. 14 Gardner.
Grinder, universal, No. 12 B. & S.
Grinder, 30" Diamond, roll or spdl.
Hammer, size A United, 50 lbs., m.d.
Hammer, helve, 40 lb. Bradley.
Keyseater, No. 2 Davis.
Lathe, 26"x10' Whitcomb-B., q. c. g.
Lathe, 20"x 8' Lodge & S., q. c. g.
Lathe, 17"x 6' Cincinnati.
Lathes, 16"x8' Monarch, q. c. g.
Lathes, 16"x6' Monarch, q. c. g.
Lathes, No. 5A Potter & Johnston.
Lathe, turret, 16" Gisholt.
Motors, 1, 3, 5, 7½, 10, 15, 25 h. p., 3-ph., 60 cy., 220 v.
Miller, No. 6 Whitney hand.
Miller, No. 4 Garvin plain.
Planers, 60"x60"x20' Niles, 3 heads.
Punch & shear, No. 6 L. & A. 12" throat.
Press, No. 5 Stiles & Parker, grd.
Presses, L. & J., o. b. i.
Riveter, ½" Adt.
Screw machine, 1" Pratt & Whitney.
Shapers, 24" L. & D.; 24" S. & S.
Shear, rotary, No. 13 Pettingell.
Shear, rotary splitting, No. 134 Marshalltown, 4' throat, ⅜" cap.

Full Line of P. S. & W. Sheet Metalworking Machinery.

FOR SALE BY

Sun Machinery Co., Inc., 39 Hamilton St., Newark, N. J.

BORING MILLS.

36" Bullard v. t. l., with cutting lubricant system.
42" Bullard, s. p. d.
54" Bullard rapid production.
53" Niles-Bement-Pond.
100" Niles, m. d.
110" Betts, b. d.
192" Niles, m. d.
16'—36' Niles, m. d.
8" Bullard mult-au-matics.
7'—10' Betts, m. d.

RADIAL AND UPRIGHT DRILLS.

8' Pond, s. p. d.
6' Baush, s. p. d.
6' Cincinnati-Bickford universal.
3½' Mueller, s. p. d.
No. 30 Natco, 48 spindles.
42" Cincinnati-Bickford, m. d.

MILLING MACHINES.

No. 4 LeBlond h. d., cone.
No. 2 Brown & Sharpe universal.
No. 3 Cincinnati high-power, s. p. d.
60"x48"x18' Ingersoll, 4 heads, adjustable.
No. 2-A Garvin universal.

LATHES.

60"x40' Fifield, triple geared.
48"x42' Johnson t. g., cone.
36"x42' Johnson t. g., cone.
30"x20' Fitchburg.
30"x18' H. S. G., q. c. g.
19"x 8' LeBlond, q. c. g.
18"x 8' Walcott, q. c. g.
18"x 8' Monarch, q. c. g.

PLANERS AND SHAPERS.

10'x 7'x25' D. & H. openside.
10'x10'x36' Betts.
72"x72"x30' Sellers.
60"x60"x20' Cincinnati.
48"x48"x16' Pond.
36"x36"x17' Gray.
24"x24"x 6' Gray.
15" Smith & Mills shaper.

MISCELLANEOUS.

Bending rolls, pyramid, 10'.
No. 0 Baker, No. 2 M. & M. Keys.
Keel bender, American.
Punch, 72" H. & J., brand new.
Punch, 48" Cleveland, brand new.
Rotary planer, 32" Cleveland.
Rotary shear, 44" Lennox.
Rotary shear, No. 6 Quickwork, brand new.
Rotary shear, 30" Quickwork.

Partial list only; own or have selling rights for over 500 machines of every description. Mail us your requirements.

FOR SALE BY

Nelson Machinery Co., 123 N. Pearl St., Green Bay, Wis.

Compressor, Curtis 8x8 vert. duplex.
Drill, American 4' radial.
Drill, Barker 25", sliding head, new.
Grinder, crank, Landis 16x68, arranged for plain grinding.
Hack saw, Peerless 9x9, belt drive.
Lathe, Gardner No.4 polishing, b.b.
Planer, 30x30x8 Gray stand., sgl. hd.
Punch & shear, single, W-W. No.14.
Tanks, 60x18' pressure storage (2).

Boilers, Engines, Transmission, Woodworking Equipment.

FOR SALE BY

Electric Motor & Machinery Co., 30 So. Clinton St , Chicago
Telephone Franklin 5155

Drill, 20" C.-O. upright, b. g., p. f.
Drill, 22" Superior up., s.h.,b.g.,p.f.
Lathe, 14x6 Sidney, q. c., d. b. g.
Lathe, 16x8 Bradford, q. c. g., t. att.
Lathe, Dalton bench type, screw cutting, with chucks.
Lathe, 22x8 Hamilton, q. c., d. b. g.
Lathe, 22x10 American, q. c. g.
Lathe, Seneca Falls, 11"x4' swing, oil pan type, complete with chks.
Miller, Rockford hd., univ. div. hd.
Shear, 42" Niagara power.

10,000 Punches for Chicago Pneumatic, Ingersoll-Rand, Thor and Little David air drills. 25 cents on the dollar.

FOR SALE BY

B. L. Saltzman, - - 524 W. Van Buren St., Chicago, Ill.

Bolt threader, Geometric 1¼".
Drill presses, from 14 to 32".
Grinder, Heald No. 60.
Lathes, Lodge & Shipley 16"x10'; Boye & Emmes 20x10'; Rockford 16"x6'; Champion 15"x5'; Van Dyke 15"x6'.
Millers, No. 5 LeBlond; Colburn; Garvin No. 13½.
Punch presses, Biiss, (Stiles type), No. 2½; No. 4 Walsh; No. 2 R. & K.; No. 19 Walsh.
Screw machines, Bardons & Oliver No.4; Foster No.6;Gridley No. 3½; Warner & Swasey No. 6; Warner & Swasey hand Nos. 1 and 2.
Shapers, 12", 16", 24"; Milwaukee 16".

Motors, Generators, Belting, Shafting, Pulleys and Hangers.

FOR SALE BY

The O'Brien Machinery Co., 113 N. Third St., Philadelphia, Pa.

Boring mill, No. 1½ Beaman Smith horizontal, floor type, 3½" bar.
Die sinker, No. 2 Pratt & Whitney.
Die sinker, No. 3 Pratt & Whitney.
Die sinker, No. 4 Pratt & Whitney.
Drill, 32"Aurora, motor driven.
Drill, radial, 6' Dreses full universal.
Gear shaper, No. 35 Fellows, belt or motor.
Grinder, No. 2 Cinti univ. 12x36.
Hammer, 2000 lbs. Chambersburg, double frame, steam forging.
Hammer, 6000 lb. Chambersburg, steam drop, new.
Hammer, 5N Nazel, m. d , cap. 6x6.
Lathe, 17"x8' Sidney, belt driven, q. c. g., collet attachment.
Lathe,30"x26' Lodge & Shipley,belt; q. c. g.
Lathe, 27"x10' LeBlond, tur. attach.
Lathe, 30"x30' Harrington.
Lathe, 36"x20' Sidney, q. c. g.
Miller, No. 2 Brown & Sharpe universal, table 10x46, dividing heads.
Milling mche., No. 3 Garvin duplex.
Pipe machines, 2", 4", 6", 8" & 12" Oster, Cox, Williams, Eaton-Cole & Burnham and Jarecki makes, belt or motor driven, comp. stock.
Planer, 36"x36"x24', Bement, 4 hds.
Press, No. 73½ Bliss trimming press.
Press, No. 20 Bliss geared.
Press, Chambersburg trimming,mtr. drive, weight 12000 lbs.
Press, No. 37 Niagara, 1100 lb. flywheel, solid back.
Saw, 30" Espen Lucas, 8" capacity.
Shaper, 20" Bement Niles, heavy duty, traveling head, one head
Shapers, 16", 20" and 24" Gould & E.
Shapers, 20" Stockbridge, with speed box, (2).

USED AND REBUILT MACHINERY

FOR SALE BY

Syracuse Supply Company. 314 W. Fayette St., Syracuse, N. Y.

Guaranteed NEW MACHINES in original crates at prices below list:

Automatic, 2½" Gridley, single spdl.
Pipe machine, No. 70 Forbes.
Screw mchs., No. 4 W. & S., g.f.h., (2).
Straightener, No. 2½ Corey.

Exceptional values in USED TOOLS:

Automatic, 1½" model A., Cleveland.
Drill, 4' Bickford radial.
Drill, 6' American univ. radial.
Drill press, 4-spdl. National sensitive.
Drill, 20" Fairbanks.
Drill press, 22" Prentice, rebuilt.
Grinder, 24" Safety Emery Wheel Co. snag grinder.
Grinder, Taylor & Fenn 20".
Lathe, 16"x 8' American, geared head, rebuilt.
Lathe, 16"x10' American.
Lathe, 20"x12' Reed.
Lathe, 8x60 Fitchburg lo-swing.
Miller, No. 5 Becker vertical.
Miller, Oesterlein universal.
Millers, Wisconsin hand, (3).
Planer, 30"x30"x16' L. W. Pond.
Planer, 60"x60"x22' Niles.
Radial, 5' Pond.
Shaper and slotter, No. 1 Rhodes.
Thread miller, No. 12 Lees Bradner.
Tilted turret, No. 6 Wood.
Turret lathes, No. 4 Foster, (2).
Turret lathe, No. 3 Cincinnati Acme.
Turret lathe, 2½x26 Pratt & Whitney.
Turret lathe, 3x36 Jones & Lamson.
Turret lathe, 2x24 Jones & Lamson.
Turret lathe, 21" Gisholt.
Turret lathe, 24" Steinle.

FOR SALE BY

H. R. Irwin Mfg. Co., Front & Pike Sts., Cincinnati, Ohio

Rare bargains—Liquidation from our tool room. Modern, up-to-date tools, guaranteed in fine condition. It will pay you to consider these tools before making a purchase.

Drill press, Champion 20", back geared. Good condition.

Drill press, 4-spindle, high speed, (2) Fine condition.

Engine lathe, LeBlond hvy. duty, 17"x8', standard equipment. All in A-1 cond.

Engine lathe, brand new, LeBlond heavy, 24"x10', pan bed, regularly equipped. Factory price on this tool about $2,700. We are offering it at substantial reduction in price.

Engine lathe, Sidney heavy duty, 17"x8', regular equipment. A-1 condition.

Grinder disc, Besly 20", dbl. end spdl. with table press, all comp. Like new.

Grinder, tool and cutter, No. 2 Ohio, Oesterlein universal. Cond. like new.

Keyseater, Davis No. 1, regular equipment. Like new.

Miller, hand, No. 25 Becker, complete. Like new.

Millers, 7-H Becker Mfg. Condition like new.

Miller, hand, No. 6 Whitney. Fine condition.

Milling machines, Gooley & Edlund, Briggs type. A-1 shape.

Milling machine, No. 0 LeBlond, plain, 4-step cone, for 2½" belt, table 8x34". Fine condition.

Milling mchne. No. 4 LeBlond, heavy duty, full universal, with full universal equipment. In A-1 condition.

Milling mchne., No. 34 Ohio, Osterlein, pl., table 11½x58", 4-step cone for 3" belt, b. g., q. c., all power feeds to tbl., regular equipment. Fine condition.

Screw machine, hand, Brown & Sharpe, No. 4, wire feed, standard machine. Like new.

Shaper, Cincinnati, back grd., 20", 4-step cone drive. A-1 condition.

Shaper, openside, 26" stroke. A-1 condition.

Turret lathe, flat, Cincinnati-Acme, geared head, 3½x36", with chucking equipment. 95% to 98% new condition.

Turret lathe, 24" Gisholt, 6¾" hollow spindle, 2-step cone, back geared, friction head, std. machine. Late type. In A-1 condition.

Turret lathe, J. & L., geared head, geared feed, 2½x24", with bar equipment. Fine condition.

Turret lathe, Warner & Swasey No. 4, standard machine. Fine condition.

Turret lathe, Warner & Swasey 16", wire feed, auto. chuck, 3-step cone, back grd., friction head, cross slide, 6-hole hex. turret, good assortment of collets. A-1 condition.

These tools are in very fine condition—require no rebuilding and can be inspected under the belts, if desired. They are the kind that will suit the careful buyer, and prices are very attractive. Please send us your inquiries.

USED AND REBUILT MACHINERY

WANTED BY

L. J. Hoy, - - 189 Seventh St., Brooklyn, N. Y.

I am in the market for the following tools:

Automatics, 1¼" Gridley multiple spindle.
Boring mill, 10'—16' vertical, extension type.
Boring mill, vertical, 20' swing.
Boring mill, vertical, 42", 1 swivel, 1 turret head, late type.
Boring mills, Nos. 31 and 32 Lucas horizontal.
Drills, radial, 3' and 4' Cincinnati, Bickford, American or Fosdick.
Gap lathes, all sizes.
Grinder, surface, No. 16 Blanchard, motor driven.
Grinders, centerless.
Planer, 36" open side.
Turret lathes, No. 4 W. & S. plain, power feed to turret.
Turret lathes, No. 4 Warner & Swasey, universal, cone drive.
Turret lathes, Nos. 2A and 3A Warner and Swasey.
Turret lathes, 24" and 36" Bullard New Era type, vertical.

FOR SALE BY

E. L. Klauber Machinery Co., 320 South Third St., St. Louis, Mo.

Brakes, 5' and 10'.
Drill, radial, 42" Bickford.
Drill, multiple, 10-spindle Gardam.
Furnaces, American hardening.
Gear cutter, 32" Whiton.
Gear miller, automatic, 4" cap.
Inside cutting machine, Excelsior No. 11.
Keyseater, Davis No. 2.
Lathes, 12" to 26".
Miller, No. 2 Cincinnati, div. hds.
Millers, hand, No. 0 Burke; No. 23 Fox.
Miller, No. 4 Cinti., rect. overarm, like new.
Miller, No. 2 Kempsmith.
Planer, 30"x30"x8' American.
Press, No. 19 Bliss, o. b. i.
Press, V. & O. No. 1, o. b. i.
Press, forming, die space 18x42.
Presses, Niagara, foot.
Rivet spinners, Grant, (4).
Saw, 9x9 Atkins Kwik-Kut.
Screw machine, Greenfield ¾" cap., Superior 1½" cap., Foster 1½" cap.
Shapers, 14" Rockford; 16" S. & M.
Shear, serpentine, Lenox ¼".
Turret lathes, 2A W. & S.; 1B Foster
Thread miller, Lees-Bradner.

FOR SALE BY

Fitchburg Grinding Machine Corporation, - Fitchburg, Mass.

LATHES.

LeBlond 14"x6'.
Reed-Prentice 16"x8'.
Putnam 14"x6'.
Greaves-Klusman 18"x8'.
Perkins threading 21"x10'.
New Haven 32"x12'.

PLANERS.

42"x36"x22' Whitcomb.
32"x26"x16' Whitcomb, 2 heads.
22"x22"x6' Whitcomb.
17"x20"x8' Whitcomb.
30"x30"x8' Powell, 2 heads.

TURRET LATHES.

2½x24" J. & L., chuck equipment.
2½x24" J. & L., bar equipment.
3x36" J. & L., chuck equipment, double spindle.
2½x26" Greenlee.
14" Gisholt.
21" Gisholt.

MILLERS.

No. 5-B Becker.
No. 1 Steptoe

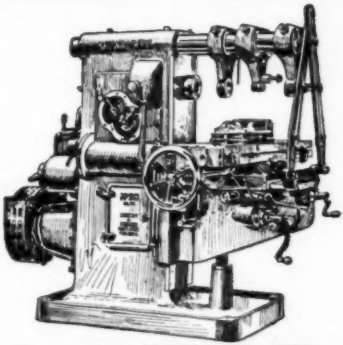
BORING MILLS.

3"x24" Rockford.
24" Reed-Prentice.

RADIAL DRILL.

3½' Dreses.

LIKE NEW—



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that will satisfy both your Production and Purchasing Departments. Genuine MILWAUKEE MILLERS —rebuilt at the factory. Every machine is completely disassembled, re-scraped, and new parts used wherever needed. They carry the same accuracy guarantee as our ***new machines.*** Better write today—

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No. 1A Manufacturing
No. 1B Plain
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No. 2A Manufacturing
No. 2BS Plain
No. 2B Plain
No. 2B Universal
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Ingersoll-Rand Imperial Type XB2 Air Compressor, with mechanical intake, poppet, discharge, size 19"x12"x16", with regulator, idler and belt, and General Electric 150 H. P. Slip Ring Motor for 220 volts, 60 cycle, 3 phase, A. C., capacity 888 cu. ft. displacement at 100 lbs. pressure.

Lodge & Shipley 24"x30' Quick Change Gear Screw Cutting Engine Lathe, 5-step cone, 3½" belt, single back gear with single tight and loose countershaft, taper attachment, compound rest, small face plate, two cabinet legs and three middle legs.

Lodge & Shipley 30"x22' Quick Change Gear Screw Cutting Engine Lathe, 5-step cone, 4" belt, single back gear with countershaft, taper attachment, compound rest, large face plate, 24" 4-jaw independent chuck fitted, full swing rest.

Many good items remaining of Engine and Turret Lathes, Drills, Grinders, Boring Machines, Motors, Blowers, Cupolas, Rattlers, Riveters, Bolt Cutters, Pipe Machines, Boilers, Tanks, Cold Saws, Axle Lathes, and Car Shop Equipment.

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335 West Fourth Street, Cincinnati, O.

BRANCHES: INDIANAPOLIS, IND., HAMILTON, OHIO, DAYTON, OHIO, LOUISVILLE, KY., COLUMBUS, OHIO

Bargains In New and Used Tools

LATHES

Used No. 3 Hardinge bench. ½" cap.
New 12"x5' Sidney g. h., taper.
New 13"x5' Seneca Falls.
New 14"x6' Monarch, taper att.
Used 14"x6' Monarch, q. c.
Used 14"x6' Hendey, q. c.
Used 16"x6' Hendey, q. c.
New 16"x8' Monarch, q. c.
New 16"x7' Chard Mfg. type.
New 16 'x9' Chard, q. c.

New 18"x8' South Bend, pl. change.
New 18"—26"x8' South Bend gap.
Used 20"x10' Greaves-Klusman.
New 20"x8' Boye & Emmes, q. c.
New 20"x10' Monarch, q. c.
Used 22"x10' Walcott.
Used 24"x12' Boye & Emmes, q. c.
New 26"x14' Boye & Emmes, q. c.
New 26"x12' Boye & Emmes, q. c.
Used 24"x16' Boye & Emmes, pl. c.

MILLING MACHINES

Used No. 1 Kempsmith universal.
Used No. 1½ Cincinnati universal.
Used No. 2 Kempsmith universal.
Used No. 20 Ohio universal.
New No. 2½ Rockford plain.

Used Hendey Lincoln type.
Used Smith hand miller.
Used No. 3 Burke hand miller.
Used M. & M. No. 3 keyseat miller.

SENSITIVE DRILLING MACHINES

New and used Allen 1 spindle, 2-spindle, 3-spindle and 4 spindle, ball bearing, some with power feed.
Used Avey 6 spindle, ball bearing.

RADIAL DRILLS

New Dreses 3' Simplex, speed box.
New Dreses 5' multi-duty.
New Baush 6' geared.

Used 5' Dreses.
Used Hammond type B sensitive.
New Barnes No. 2 horizontal.

UPRIGHT DRILLS

Used 20" Hoefer wheel and lever fd.
New 20" Snyder, b. g., p. f.
New 23" Snyder, tapping att.
Used 24" Mechanics, sliding head.
Used 24" Cincinnati-Bickford, s h.

Used 25" Barnes, stationary head.
Used 26" Barnes, sliding head.
New 25" Snyder, tapping att.
New 28" Snyder, sliding head.
New 30" Snyder, sliding head.

MULTIPLE DRILLS

New Baush No. 4 hd. 22x52 41 spdls.
New Baush No. 4 hd. 30x46 22 spdls.

Barnes 22" 3-spindle, gang drill, automatic return.

SHAPERS AND PLANERS

Used 16" Smith & Mills.
Used 16" Mattison, back geared.
Used 20" Gould & Eberhardt, b. g.

New 20" Columbia, b. g.
Used 26"x26"x8' Flather, 1 head.
New 36"x36"x12' W. & P., 2-heads.

GRINDERS

New Morse No. 3 plain, 8"x40".
Used No. 10 B. & S. plain, 6"x20".
Used Gisholt tool grinder.
New No. 78 W. & M. surf. grinder.

New Churchill internal.
New Bath No. 2 univ. equipt. c.
New Bryant No. 6 chucking.
New W. & M. No. 3 surf. grinder.

PRESSES AND SCREW MACHINES

New Nos. 1, 2, 3, 4 and 5 Federal.
Used No. 18 Bliss.
Used No. 2 Rockford.
Used No. 3 Consolidated.

New Wood tilted turret all sizes No. 1 to 4 incl.
New No. 2 Southworth.
Used No. 3 Superior.

MISCELLANEOUS

Used Whiton No. 4 centering mche.
New No. 2 Adams-Farwell gear hobber.
New LaPointe No. 3-B broach.

New 4" Standard pipe machine.
New Peerless 9" high speed saw.
New Racine 6x6 saw.
New Robertson No. 5 saw.

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For Use on Miller, Shaper, Planer or Drill

Weight 37 lbs.
Opens 6-inches

Price Only $18.

The top, bottom and sides are accurately machined after assembly.

Well made throughout of good material. Will stand up under hard use.

No well-equipped shop is complete without this modern vise.

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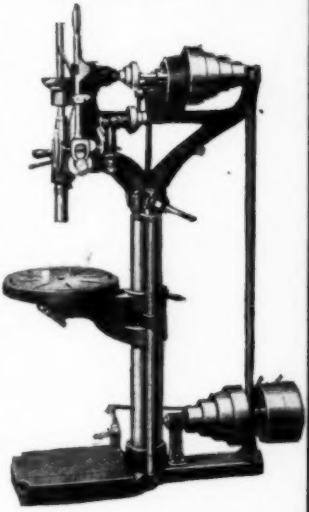
WE have taken over the stock of 20" Upright Drills of a manufacturer of good standing who will continue to make this product for us under the name of the "BB" Drill.

THESE 20" Drills have power feed and back gears, are very powerful, accurately made and well finished.



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(Continued from Preceding Pages)

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We can save you money on standard, high grade Bench Vises, 3 and 4-jaw Universal and Independent Chucks and a number of other items.

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A. R. Marsh Machinery Company

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Real Values are *Usual* with Morey

BORING MILLS
1—Bullard 24" New Era.
1—Baush 42" vertical, 2-head.
1—Niles 42" vertical, 2-head.
1—Colburn 54" vertical, 2-head.
1—Rockford No. 2 horizontal.
1—Bement-Miles horizontal.

SCREW MACHINES—Automatic
12—B. & S. Nos. 0, 2, 2G auto.
14—Gridley 4-spindle 9/16", ⅞", 2⅜".
10—Gridley 3⅜", 4⅜" single spindle.
13—Cleveland ⅝", ⅞", ⅞", 7⅛" "A".
4—Cleveland ⅝", ⅞", ⅞", 1⅜" "B".
1—New Britain 1¼x7. bar.
8—New Britain No. 24.
2—National Acme Nos. 52, 54.
11—P. & J. No. 5-A, No. 6-A.

DRILLS—Multiple Spindle
2—Baush Nos. 2 and 3.
2—Natco Nos. 14 and 11 rect. hd.
7—P. & W. Nos. 11, 12, 13.
1—Moline No. 5-D, 6-spindle.
1—Foote-Burt No. 25.
3—New Garvin 6-spindle.

DRILLS—Upright and Radial
2—Allen 4-spindle, h. s., b. b.
2—Colburn Nos. 2 and 4.
1—Barnes 4-spindle gang, 20".
10—Barnes 18", 20", 22".
1—P. & W. No. 1 gun barrel.
1—New No. 3 Turner vertical.
3—Baker No. 310.
2—Cincinnati Bickford 24".
1—Niles 5' semi-univ. radial.
1—American 4' univ. radial.
1—Baush 6' radial.
1—N.B.-P. 96" plain radial.

PLANERS
1—W. & S. 24x24x5', 1 head.
2—Putnam 26x26x8', 2 heads.
1—Gray 38x38x28', 3 heads.
1—Putnam 48x48x12', 2 heads.

TURRET AND SCREW MCHS.
9—Gisholt 24", 6¾" hole.
11—New P. & W. 7/16", ⅝".
4—Greenlee 2½x26.
4—J. & L. 2x24, 3x36.
1—Foster No. 1B.
2—Libby 26", 4½" and 7¾" hole.
1—New No. 4 Millholland.
2—W. & S. No. 4.
6—Foster Nos. 4, 6.
1—Acme Fox Monitor.
1—W. & S. No. 6, b. g., p. f.
2—Gisholt Simplimatics.

MILLING MACHINES
1—Hendey Norton 2-A univ.
1—B. & S. No. 3A universal.
4—Cincinnati Nos. 2 & 3 universal.
1—Garvin No. 1½ univ.
1—Rockford No. 2½ universal.
1—Rockford No. 2 plain.
5—B. & S. Nos. 2, 4, 13-B plain.
1—Hendey Norton No. 3 plain.
1—Kempsmith No. 3 plain.
1—Becker No. 7 duplex.
11—Becker Nos. 3H, 4B, AB, 5C, C1, vertical.
2—Cincinnati No. 4 vertical.
9—P. & W. 4½x12, 6x14, 6x48, 6x80 thread.
1—P. & W. 12" heavy semi-auto.
15—P. & W. 5" automatic.
24—P. & W. 4" spline.

SHAPERS AND SLOTTERS
1—Columbia 28" shaper.
1—Queen City 16" shaper.
1—Rhodes 7" vertical shaper.
4—Dill 15-18" slotters.

PRESSES
5—Bliss No. 52.
1—Toledo rack and pinion.
25—Waterbury Farrel double connection, 3" and 4" stroke.
2—Z. & H. No. 8½ percussion.

BOLT CUTTERS
3—Acme ½" 2-spindle.
1—Landis 1½" double spindle.
3—National 1½", 2-spindle.

GEAR CUTTERS
4—Barber Colman No. 3.
1—Barber Colman No. 12 spline.
7—B. & S. 3x36, 3x26, 4x36, 13H.
6—G. & E. No. 18-H.
20—Fellows Nos. 6, 61, 615.
11—Gleason 6", 11", 18".
1—Gleason 15" spiral bevel finisher.
3—Fellows Gear Grinder.

LATHES
12—Hendey 12"x5', 12"x6', 16"x6'.
4—Seneca Falls 12"x6', q. c. g.
3—Davis 12"x6', q. c. g., m. d.
10—South Bend 15x5, 18x8 gap.
1—Bradford 16"x12'.
1—Fay & Scott 20-42", gap.
1—Whitcomb 24"x18', d. b. g.
1—Walcott 26"x10'
1—Bridgeford 26x12', q. c. g.
1—Greaves-Klusman 26x12'.
1—Johnson 30x12', motor drive.
1—Bridgeford 42x38', geared head.
3—LeBlond 26x10 duplex crank.
2—LoSwing 3½x84, 2 carriage.
3—Porter Cable.
40—New Star—all sizes.

GRINDERS
4—B. & S. Nos. 10, 11, 12 plain.
4—Cincinnati No. 2, 12x36, plain.
7—Landis 6x18, 10x20, 10x24, 10x36, 12x36 plain.
8—Norton 6x32, 10x36, 16x36, 18x96 pl.
1—Queen City 16x72 plain.
1—Landis 10x52 cam.
1—Cincinnati No. 2 universal.

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42"x18' American Geared, Head Q. C. Lathe, m. d., latest type.
38"x18' Fifield Triple Geared, Standard Change Lathe.
30"x16' LeBlond Stand. Change.
26"x8' Walcott Q. C. Lathe.
24"x12' American Geared Head, Q. C. Lathe, m. d., latest type.
24"x10' Schumacher & Boye Q. C.
21"x10' LeBlond Q. C. Lathe.
20"x12' Lodge & Shipley Q. C.
19"x10' LeBlond Q. C. Lathe.
18"x12' Cisco, q. c.
18"x10' Amer. geared head, q. c.
18"x10' and 18"x8' American Q. C.
18"x8' Mueller, Q. C. Lathe.
16"x8' LeBlond Quick Change Lathe.
16"x6' Monarch Quick Change Lathe.
16"x6' and 14"x6' Lodge & Shipley Select. Grd. Hd., Q. C latest type.
1B Foster Univ. Hollow Hex. Turret.
24" and 21" Gisholt Turret, late types.
3"x36" Jones & Lamson Turret Lathe.
3"x36" J. & L. dbl. spdl. Turret Lathe. (Serial in 20,000).
3¼"x40" Greenlee Turret, bar equip.
2½"x26" Pratt & Whitney Turret.
2" Pratt & Whitney Turret Lathe.
Nos. 2, 4 and 6 Foster Turret Lathe.
Nos. 2, 4, 6 Warner & S. Turret Lathes.
No. 4 Millholland Turret Lathes.
No. 4 Bardons & Oliver Turret Lathe.
No. 4 B & S. wire feed. Screw Machine.
No. 2 S. P. Garvin Hand Screw Mche.

MILLING MACHINES

No. 2B B. & S. Plain, single pulley.
Nos. 1½ & 2 Cincinnati Plain, cone pul.
No. 1 Kempsmith Pl., cone p., late type.
No. 0 LeBlond Plain, cone pulley.
No. 3 Becker Vertical, Miller, cone p.
No. 3 B. & S. vertical, Miller single pu.
No. 2 B. & S. Vert. Miller, cone p.
28" Cin. Semi-Auto. Duplex Miller.
No. 7H Becker, Lincoln type, Mfg.
Gooley & Edlund (Briggs Type) Mfg.
No. 6 Whitney Hand Miller.
Nos. 0 & 2 Bristol B. B., Hand Miller.
No. 3½ Fox Plain Power Mill.
No. 2 P. & W. Plain Power Miller.
No. 2 Knight Milling & Drill. Mche.
Nos. 1½ & 4 LeBlond Univ. cone. p.
Nos. 1½ & 2 B. & S. Univ., cone p.
No. 2 Becker Univ. cone. pulley comp.
No. 1½ Owen Univ. cone p., complete.
No. 5 LeBlond Plain, m. d., all geared.
No. 4 Cin. Hi-Power Pl., c.p., late type.
No. 3B Hvy. B. & S. Pl., single pulley.
No. 3 Cincinnati Plain, cone pulley.
No. 3-B B. & S. Plain, single pulley.
No. 3 Kempsmith Plain, cone pulley.
No. 3 B. & S. Plain , cone p., late type.
No. 3 Hendey-Norton Plain, cone pulley
Nos. 2½ & 3H LeBlond Plain, cone p.

GEAR MACHINERY AND GRINDERS

No. 12 Barber-Colman Gear Hobber.
No. 5-A Lees-Bradner Gear Hobbers, 14 and 19" sizes.
No. 18-H G. & E. H. D. Gear Hobb.
No. 6 Fellows Gear Shapers.
20" Ingle Gear Tooth Rounding Mche.
No. 13 B. & S. Auto. Spur & Bevel.
No. 4—48" B. & S. Auto. Spur.
No. 3—36" No. 3 26" Brown & Sharpe Auto. Spur Gear Cutters.
84" Diamond Face Grinder, arr. for m.d.
No. 2 B. & S. Surface, with mag. chuck.
Walker Sgl. Stroke Vert. Surface Grinder with magnetic chuck.
No. 1 W. & M. bb., Hd., Feed, Surf.
No. 70 Heald Internal Grinders, clutch in Head Stock.
No. 75 Heald Internal Grinder.
Capital Internal Grinder with collett att.
No. 120 Gardner b.b. double Disc.
No. 8-18", No. 12 26" Besly Disc.
No. 2—18" and No. 4—23" and No. 6—26" Gardner Disc Grinder.
Nos. 3 & 3 Brown & S. Univ. Grinders.
6"x32" & 10"x50" Norton Plain.
No. 2—12"x36" Cincinnati Plain.
16"x36" Landis Plain Self-Contained.
8"x30" Modern Plain Self-Contained.
6"x15" Fitchburg Plain Grinder.
No. 2 Norton Univ. Tool & Cutter.
No. 1 LeBlond Univ. Tool & Cutter
Gisholt Universal Tool Grinder.
No. 3 B. & S. Univ. Tool & Cutter.
New Yankee Twist Drill & Emery Gri.

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5' Reed-Prentice Pl. Radial arr. for m. d.
4' Cinti-Bickford Pl. Radial, gear box dr.
4' and 3½' American, Triple Geared Plain Radial, gear box drive.
3½' Mueller Pl. Radial, m. d. thru g. b.
3' Reed-Prentice Plain Radial. g. b. d.
2½' Fosdick Plain Radial, cone, p. dr.
Nos. 1 & 3 W.F. & J. Barnes Hor. Rad.
2½' Carlton b. b. Sensitive Radial, t. a.
3' American b. b. Sens. Radial, t. a.
4' Hammond b. b. Sensitive Radial, t. a.
30" Snyder Upright Drill.
28" Aurora Upright Drill.
28" & 26" W. F. & J. Barnes, lat, typs.
26" W. F. & J. Barnes Up. Drill tap. att.
24" Aurora Upright Drill.
25" Superior (Kokomo Hi-Speed) Up.
24" Cinti-Bickford Upright Drill, gear box drive, tapping att., latest type.
22" W. F. & John Barnes Upright Drill.
22" Aurora Upright Drill, tap. att.
21" Cincinnati-Bickford Upright Drill.
D No. 2 Colburn Heavy Duty Drill.
No. 314 Baker Bros. heavy duty Drill.
5-spdl. Detroit Hor. Drill, semi-auto.
H. & W. Class "B" b. b. sgl. spindle.
No. ½ Avey 2-spdl. ball bearing Drill.
H. & W. Class "K" b. b. single-spindle.
4-spdl. Foote-Burt Hvy. Duty Drill.
No. 41 Natco Straight Line Multiple Drill, equip. with 8 spindles.
No. 30 Natco Multiple, 30 spindles.

SHAPERS AND PLANERS

32" Cinti hvy. duty b. g. Crk. Shaper, m d.
24" Queen City heavy duty b. g. Crank.
24" Walcott Heavy Duty B. G. Crank.
24" Stockbridge Hvy. Duty, B. G., Crk. Shaper, power down feed to head.
21" Averbeck Hvy. Duty, b. g. Crank.
16", 20" Cincin. hvy Duty b. g. Crank.
20" Kelly H. D., B. G., Crank Shaper.
16" Steptoe H. D., B. G., Crk. Shaper.
16" Smith & Mills H. D., B. G., Crank.
16" Hamilton Heavy Duty B. G. Crank.
15" Potter & Johnston Univ. Shaper.
15" American Tool Works Crank.
14" Steptoe Crank Shaper.
26"x26"x8' Woodward & P. Planer 1hd.
36"x36"x14' American Planer, 2 hds.
38"x38"x18' Niles Planer, 2 Heads.
72"x54"x12' N. B. & P. 2 heads.

MISCELLANEOUS

Air Compressor, 18"x12"x12" Laidlaw, dbl. stage Steam Drive, cap. 700 cu. ft.
Arbor Press, No. 4 Atlas.
Arbor Press, No. 55 Atlas, power, b. d.
Arbor Press, Greenard No. 4.
Arbor Pr. & Broach, 15-ton Herc. Pwr.
Auto. Mche., 1¼" Cleve. Model "B".
Auto. Screw Mch., No. 52 Natl. Acme.
Broach. Mchs., Nos. 2 & 3B LaPointe.
Broach. Mchs., Dbl., Nos. 2 & 3 LaP.
Broach. Mch., No. 3A LaP. of Hudson.
Bolt Cutters, 1" & 2" Acme, Class "A".
Bolt threading machines, 1" and 1½" Landis, double spindle.
Bolt Thread. Mchs., 1" and 1½" Landis.
Bolt Threading Mch., 1" Landis, with l.s.
Boring Mill, 24" Bullard Rapid Production Type, Vert., with tur. & side hd.
Boring Mill, 37" Niles Vert., 2 heads.
Bor. Mill, 42" Bausch Vert., 2 hds., p.r.t.
Boring Mill, 51" Niles Vert., 2 heads.
Boring Mill, 51" Bullard, Vert. 2 heads.
Chucking Mch., No. 33 New Britain auto.
Die Sinkers, Nos. 2 & 3 Pratt & W.
Forcing Press, 15-ton Lucas Pwr. b. d.
Geared Press, No. 91-B Toledo, double crank, 32" between uprights.
Gun Driller, No. 1 P. & W., 2 spdl.
Hammers Helve, 40 & 60 lbs. Bradley, rubber cushioned.
Hammers, Riveting, No. 3A High Spd.
Hammer, Steam, 600 lb. Chamberaburg.
Hammer, 100 lb. Bliss Board drop.
Keyseater, No. 2 Davis, cap. ⅝" keyw.
Keyseater, No. 00 Baker, cap. ¾" keyw.
Keyseaters, Nos. 0 and 2 M. & M.
Frohler, No. 1 Garvin, 2-spindle.
Presses, Pwr., Nos. 19 & 20 Bliss, o. b. i.
Press, Pwr., No. 195 D.H. Stoll, o. b. i.
Presses, Pwr., P-No. 2 P No. 3 Ferracute.
Press Power, No. 3 Bliss Stiles type.
Shr., Pwr., 8' L. & N. 16 ga. and lighter.
Shear, Gap, No. 336 — 36" Niagara Power, cap. 10 ga. and lighter.
Tapping Mch., Nos. 1 & 2, Garvin Auto
Thread Miller, 6"x80" P. & W.

And Many Others. Send Us Your Inquiries.

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What have you to Sell?

Machines of Quality

BORING MILLS

24" Bullard V. T. L., New Era Type.
42" Gisholt Rapid Power Traverse, 1 turret head, 1 frame head.
42" Bullard Vertical Turret Lathe. New Era Type.
54" Bullard Boring and Turning Mill, rapid production type.
8' Cincinnati Boring Mill, rapid power traverse, 2 swivel heads.
No. 1 Cleveland Horizontal Boring Mill, single pulley drive.
No. 3-A Universal Boring Mill, 3" bar.
No. 21 Lucas Horizontal Boring Mill, single pulley drive.

DRILLS

Nos. 217, 310, 314 Baker.
No. 32 Natco, arranged for 40 spindles, motor drive.
3½' American Pl. Radial, gr. box dr.
4' Mueller Radial, gear box drive.
2-Spindle Edlund High Speed Ball Bearing.
4-spdl. Allen High Speed Ball Bear.
Single-spindle Henry & Wright High Speed Ball Bearing.

GEAR CUTTERS

36S Gould & E. Spur Gear Cutter.
No. 12 Barber-Colman Gear Hobber.
6" Gleason Bevel Gear Generator.
11" Gleason Bevel Gear Generator.
60" Brown & Sharpe Gear Cutter.
9"x36" Gould & E.. Gear Cutter.

KEYSEATERS

No. 0 Baker Keyseater.

GRINDERS

6x32 Norton Plain Cylindrical.
10x50 Norton Plain Cylindrical.
No. 2 Brown & S. Surface Grinder.
No. 22 Heald Rotary Surface Grinder, with 12" magnetic chuck.
No. 255 Heald Rotary Surface Grinder, with 12" magnetic chuck.
No. 33 Abrasive Vert. Surf. Grinder, with generator and magnetic chuck.
10x36 Thompson Uuiversal Grinder.
No. 1½ Cincinnati Cutter Grinder.
No. 1 LeBlond Cutter Grinder.

LATHES

12x5 Hendey, yoke type.
13x6 Willard 3-step cone.
14"x12' Monarch, with draw-in attachment, cone drive.
14x6 Hendey, yoke type, relieving attachment, taper attachment.
14x6 Lodge & Shipley.
14x8 Lodge & Shipley.
16x6 American, cone drive.
16"x10' Hendey with taper attachment.
18x8 Hendey, taper attachment, 4-jaw chuck, cone drive.
18x8 Lodge & Shipley, 3-step cone drive.
24x10' American, 3-step cone.
36x28' Lodge & Shipley selective, triple geared, arranged for belted motor drive, but without motor, taper attachment.
42"x32' American, triple geared, motor drive; with 35 HP motor, starter.

THE MOTCH & MERRYWEATHER MACHINERY CO.

CLEVELAND

DETROIT CINCINNATI PITTSBURGH

This is a Partial List Of Dependable Machines In Stock

MILLING MACHINES

No. 1-B Milwaukee Universal.
No. 1½B Milwaukee dble. over arm.
No. 2-B Milwaukee Universal.
No. 2 Cincinnati Plain, cone drive.
18" Cincinnati, single back geared, 4-step cone, belted power feed.
No. 1-B Brown & Sharpe sgl. pul. dr.
No. 1½ Cincinnati, cone drive.
No. 2 Cincinnati, single pulley drive.
No. 3 Cincinnati Plain Horiz. High Power, single pulley drive.
No. 4 Cincinnati Plain Horiz. High Power, single pulley drive.
No. 1½ LeBlond Universal with dividing head.
No. 4 Cincinnati 3-step cone Universal, with dividing head.
No. 4 Cincinnati, rectangular overarm, arranged for motor drive, but not including motor.

VERTICAL MILLERS

No. 2 Brown & Sharpe, belt drive.
No. 3 Cincinnati high power, single pulley drive.
No. 4 Cincinnati high power, single pulley drive, with motor.

PLANER TYPE MILLERS

24x24x20 Ingersoll, fixed rails, 2 side heads, 1 rail head, arranged for mtr. drive, not including motor.

PLANERS

24"x24"x6' Gray, 1 head on rail.
24"x24"x10' Gray, 1 head on rail.
30"x30"x8' Cincinnati, 1 rail head.
36"x36"x8' Cleveland Open Side, 1 rail head, 1 side head.
36"x36"x10' Cleveland Open Side, 1 rail head, 1 side head, belt drive.
36"x36"x20' Pond Double housing, box table, 2 rail heads, 1 side head.
42"x42"x10' Detrick & Harvey Open Side. 2 rail heads, 1 side head.
48"x48"x12' Cleveland Open Side, 2 rail heads, 1 side head, box table.

SHAPERS

7" Rhodes, with vertical slotting attachment, rotary table, motor drive, with ½ HP G. E. motor.
15" Potter & Johnston Universal.
16" Cincinnati, cone drive.
20" Cincinnati, cone drive.
20" Gould & Eberhardt, cone drive.
20" Smith & Mills, cone drive.
20" Steptoe, cone drive.
24" American, cone drive.
24" Cincinnati, cone drive.
24" Gould & Eberhardt.
24" Steptoe.
26" Smith & Mills, cone drive.

TURRET LATHES

No. 3-A Warner & Swasey, arr. with complete chucking equipment.
No. 4 Warner & Swasey.

MISCELLANEOUS

15" Newton Slotter, arr. for variable speed motor drive, without motor.
15-ton Lucas Forcing Press.
No. 12 Pratt & Whitney Profiler.
1½" Acme Bolt Cutter, 12 sets of dies.
5-spindle Taylor Horizontal Drill.

Warehouse and Shop Located at
888 East 70th St., CLEVELAND, OHIO

The Motch & Merryweather Machinery Co.

Bath's Guaranteed

Bolt Cutters

" Acme, belt drive.
½" Acme, Standard, belt drive.
½" Acme staybolt cutter.
1½" Landis, sgl. head, with dies.
1¼" Landis, double head, with dies.

Boring Mills—Vertical

14" Baush, 2 swivel heads.
8" Colburn boring mill.
1" Niles-Bement-Pond.
84" Ridgway 2 heads, gear feed excellent.

Boring Mills—Horizontal

" bar Binsse, table type.
3½" bar Rochester, floor type.

Cranes

5 to 25 ton, all spans, both a. c. & d. c.

Drills

Allen single spindle ball bearing.
-spdl. Moline rail drill, 1½" cap.
No. 1, 8' wall radial.
0" Cincinnati, sliding head.
0" Aurora, sliding head.
24" No. 25 Foote-Burt, with compound table
3' Western radial drill.
Several 20" and small sens. drills.
3-spindle Barnes drill press.

Forging Machines

½" and 4" Ajax, steel bed.
" Ajax, cast iron bed.
¾" and 1½" Acme, steel bed.
250-ton Mesta steam hydraulic.

Grinders

84" Diamond face grinder.
18x96" Norton plain.
17x36" Landis universal.
No. 20 Safety electric floor grinder, 10 HP motor, 32"x4" wheels.
Various electric floor grinders and grinding stands.
26" horizontal disc grinder.
No. 1 Besly disc grinder, 12".

Keyseaters

No. 00 Baker, capacity ¾"x8", tilting table.

Lathes

16" to 18"x6'-8' beds, tool room.
20"x10' Boye & Emmes, quick change, double back geared.
26"x14' Greaves-Klusman lathe.
30"x14' Boye & Emmes, double back geared.
36"x14' Schumacher & Boye, triple geared.
42"—60"x34' Houston, Stanwood & Gamble, grd. hd., mtr. dr.
60"x20' American, triple geared.

Tumbling Barrels

Several sets 18"x48" steel lined, square, with roller bearings and exhaust.

CYRIL J. BATH & CO., E. 70th &

Cleveland Stock

Hydraulic Equipment

175-ton R. D. Wood 4-column Flanging Press.
Morgan Hydraulic Riveter, 8' 6" gap.
Wood and Bement-Miles Hydraulic Riveters, 10' 6" gap.
15-ton Hydraulic Mfg. Co. Press.

Milling Machines

Style "B" Gooley & Edlund, table 54"x11½", (2).
20"x7½"x18" Oesterlein plain, belt drive.
No. 1 Rockford plain, back geared, 22"x6½"x15'.
No. 2-B heavy Brown & Sharpe plain, 28"x10"x19".
No. 4 Cincinnati high power miller, table 64½"x16½".
Becker miller, model "C", table 14"x54".
Nos. 2 & 3 Pratt & Whitney Die Sinkers.

Planers and Shapers

22"x24"x57" Fitchburg, single head.
30"x30"x8' Gray, single head.
36"x36"x14' Gray planer, 2 heads.
60"x60"x20' Cincinnati, 3 heads, very good.
48"x48"x14' Hamilton, 4 heads.
12" Springfield, crank shaper.
24" Rockford, Queen City, and Cincinnati shapers.
16" Gould & Eberhardt shaper.
24" Gould & Eberhardt, invincible type.

Punches and Shears

84" throat, Long & Allstatter, capacity about ¾" thru ¾".
Kling Bros. horn press, 60" horn, flywheel 50" dia. 6½" face.
48" throat No. 4 Southwark, capacity 2"x1¼".
48" throat Bement-Miles cap. 1¼"x1".
36" throat Lennox rotary shear, capacity about ½" plate.
15" throat No. 14 Williams & White.
Lennox rotary bevel shear, ¾" capacity.
76" Multiple punch, shear or press, ⅝" capacity.

Turret Lathes and Screw Machines

3"x36" Jones & Lamson.
No. 4 Bardons & Oliver.
6-A and 7-A Potter & J. auto.
1" Garvin screw machine.

MISCELLANEOUS

Acetylene Generator.
Blower, No. 4 Root, motor drive.
Blowers, Nos. 1 & 2 Buffalo Forge.
Chain Hoists, ½, 1, 1½, 4 & 6 ton.
Cold Saw, No. 4 Cochrane-Bly.
Compressor, air, 6"x6" Snider-H.
Gear Hobber, 5-A Lees-Bradner.
Hack saw, power, 5" Victor.
Hammer, 100 lb. Bradley helve.
Pipe Machines, 4" Jarecki, 8" Merrill.
Slotter, 48" Niles-Bement-Pond motor drive.

Machinery Av., N. E., Cleveland, O.

Guaranteed Rebuilt
AT ATTRACTIVE

ENGINE LATHES

4"x 6' LeBlond, l. c. g. and chuck.
4"x 6' Hamilton.
4"x 6' Porter, compound rest and taper attachment, l. c. g.
6"x 8' Lodge & Shipley, old style, compound rest, q. c. g.
6"x 8' Bradford, c. r., loose change gear.
6"x 8' Monarch, compound rest, standard pattern.
8"x 7' Fulton heavy duty friction hd. pl. turning lathe, pan bed, dbl. tool post and countershaft, new.
18"x 8' Prentice, compound rest, l. c. g., chuck.
18" x8' Porter, 4-step cone, s. b. g., q. c. g. engine lathe, complete, new.
18"x 8' Superior, c. r., q. c. g.
18"x10' Star, 4-s. c., s. g., with 16" 4-jaw ind. chuck.
20"x 8' Reed friction head, with turret on carriage.
20"x10' Boye & Emmes, c. r., q. c. g.
24"x10' Greaves & K., c. r., q. c. g.
24"x10' Boye & Emmes, c. r., q. c. g.

TURRET LATHES AND SCREW MACHINES

"x24' Jones & L. g. h. flat turret.
No. 00 Brown & Sharpe auto.
No. 0 Brown & Sharpe auto., (2).
2" W. & S., friction head.
2" W. & S., friction head, with set-over turret.
4" W. & S., friction head, (2).
6" W. & S., friction head.
No. 4 Warner & Swasey, p. h., a. c. and b. f.
No. 2 Warner & Swasey, p. h., a. c. and b. f.
No. 4 Warner & S., g. f. h., a.c. and b. f.
No. 3 Foster g.f.h. turret screw mch., with p. f. carriage and turret.
No. 55 Nat'l Acme 4-spdl. auto.
2½" Cleveland model "A" auto. screw mch., with 5-hole turret.
1½" Cleveland model "A" auto. screw mch., with 5-hole turret.
18" Libby, factory rebuilt.
No. 2-G Brown & Sharpe automatics (2).
No. 2 Brown & Sharpe turret forming (2).
1"x2" Millholland, pl. hd., auto. ck., bar fd., hand fd., cross slide and turret, complete, new.
1"x7" Millholland turret screw mch., pl. hd. auto. ck., bar feed hand fd. cross slide, with power fd. tur., new.

DRILLING MACHINES

No. 1-S Garvin duplex, (2).
5' American sensitive radial with t. a. and elevating table.
5' Mueller, gear box, sgl. pulley dr.
5' and 6' Americans, tr. grd., 8-speed change, gr. box, sgl. pulley drive.
21" Aurora W. & L., square base, stationary head.
5' Western, with speed box, tap. att.
5' American triple purpose, with speed box.
26" Cincinnati sliding head, b. g. and p. f.
14" 4-spindle Henry & W., h. s., b. b.
4-spindle Allen high speed, ball bearing, power feed to each spindle.
No. 14 Colburn heavy duty.
No. 25 Foote-Burt heavy duty, (2).
4' Hammond h. s., b. b.; Radial with t. a. and box table.
12-spindle Moline, cam fd., two tbl.
3-sp. Edlund, high sp., ball bearing.
No. 22 Colburn, sgl. sp., hvy. duty, 1½" cap., with solid spindle and flange for receiving multiple drill heads, new, (2).
No. 44 Colburn, sgl. sp. heavy duty, 2½" cap., with solid sp. and flange for receiving multiple drill heads, new, (2).
Colburn horizontal duplex drill, 2½" cap. with rotating table, arranged for motor drive, new.
No. 34 Demco high speed bench drill with C spindle, new.

The Strong, Carlisle & Hammond Co.,

Machine Tools—

PRICES —

MILLING MACHINES

No. 0 Bickett, hand, bench type, (3).
Toledo hand milling machines.
No. 1½ B. & S., cone dr., universal, complete.
No. 1 Brown & Sharpe vertical.
No. 4 Brown & S., cone drive, univ.
No. 3-B heavy B. & S. plain, constant speed.
Type C Becker vertical, constant speed drive.
No. 1½ B. & S. cone drive, univ.
24"x18"x60" Ingersoll, Farwell ve tical milling head.
25"x7½"x18" Oesterlein universa vertical attachment.
No. 1-Y Brown & Sharpe plain.
No. 12 B. & S. manufacturing.
13-B Brown & Sharpe, plain mant facturing, (2).

METAL CUTTING TOOLS AND SQUARING SHEARS

No. 3 Atkins band saw, belt driven, new, (2).

GEAR CUTTERS AND HOBBERS

26" No. 3 Brown & Sharpe automatic, (2).

SHAPERS AND PLANERS

16" American, b. g. c., complete.
16" Gould & Eberhardt crank, gear box, single pulley drive.
20" Hendey friction, (2).
16" Smith & Mills, back grd. crank.
22"x22"x 5' Putnam planers, (2).
24"x24"x5' Cincinnati, one head.
30"x30"x10' Woodward & Powel three heads.
72"x72"x26' Fitchburg, four heads.

CENTERING MACHINES

Centering machines, single spindle Cadillac, (2).

GRINDERS

No. 1 Brown & Sharpe universal.
No. 3 Brown & Sharpe universal.
No. 1 Bath universal.
No. 13 B. & S. univ. and tool, (2).
No. 3 Diamond wet tool grinder with drop apron, new.
No. 4 Diamond wet tool grinders with drop apron, new, (2).
No. 10 Brown & Sharpe plain.
No. 14—30" B. & S. plain cyl., (2).
No. 14—48" B. & S. plain, (2).
6"x30" Norton plain, (2).
No. 24 Landis plain.
8" Heald rotary surface grinder with magnetic chuck.
No. 6-A Bryant internal.
No. 1 LeBlond cutter grinder.
J. B. Point "Yankee" drill grinders complete, new, (2).
Type "DE" Hisey-Wolf internal.
No. 11 Brown & Sharpe pl. grinders Plain emery wh'l stand with column
No. 1 Woods cutter and reame grinder, complete, new.
No. 2 Woods cutter and reame grinder, complete, new.
No. 2½ Woods cutter and reame grinder, complete, new.
20" Whitney wet tool grinders, com plete with countershaft, new, (2).
C3A Grand Rapids duplex dril grinders with wet att., new, (2).

MISCELLANEOUS

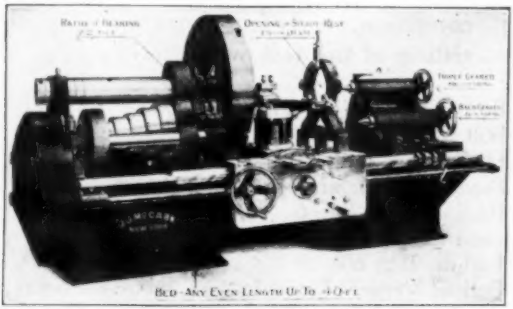
Bolt cutter, 1" National 2-spindle, with Landis heads.
Boring or drilling machine, No. 1-S Garvin duplex horizontal, (2).
Boring mill, 34" Colburn vertical, swivel turret head.
Boring mill, 72" Niles vertical, two swivel heads.
Broach, No. 2 double Lapointe.
Filing machine, No. 2 Cochrane-Bly
Marking machine, Etchograph.
Pipe machine, 8" Jarecki, No. 88.
Pipe machine, 4" Oster.
Profiler, No. 12, 2-spdl. P. & W. vert.
Scleroscopes, Shore, (4).

Cleveland, Ohio; Detroit, Michigan

Double Profits—With One Machine

One Investment
One Floor Space

One Operator
One Maintenance



J. J. McCabe "2-in-1" Double Spindle Lathe

DOUBLE CAPACITY—Small Lathe and a Large Lathe.

DOUBLE POWER—Speed for Light Work; Strength for Big Jobs.

DOUBLE the Speeds, Feeds and Thread Cutting Range.

You can turn large diameter work the entire distance between centers, on either the large or small swing.

A few Used Lathes on various length beds available for immediate shipment. Modern types tested out at our own works, guaranteed condition and at a big saving under new values.

Yes! We can send you our bulletin.
But when you can see one in operation, it will win you over even quicker than our story or pictures. Over 3,000 in operation all over the world—no doubt you can see one close by.

You can find the capacity in other Lathes,
.....but not in any ONE machine.....

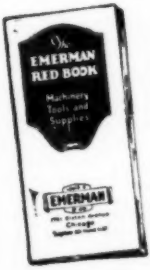
J. J. McCabe Lathe & Machinery Corp.

149 Broadway, New York City

ANNOUNCEMENT!

We have recently purchased about 1,000 Machine Tools, all in A-1 condition, ready for operation, consisting of the following items:—

Boring Mills: 24" to 84".
Bolt Cutters: ½" to 3".
High Speed Drill Presses: 3 to 6-spindle.
Broaching Machines: Nos. 2, 3 and 4.
Radial Drills: 2' to 6'.
Gear Machinery.
Lathes: 9" to 60".
Bullard Vertical Turret Lathes: 36" and 42" New Era Type.
Milling Machines: No. 0 to No. 5 Plain.
Milling Machines: No. 2 to No. 6 Vertical.
Planers: 24" to 60".
Punches and Shears: All capacities.
Screw Machines: Various sizes.
Grinders: Plain and Universal



Send for copy of our "Red Book"

We have an immense number of tools, located at our Chicago and Dayton Warehouses, on which we are making exceptionally low prices to increase our 1927 business.

Louis E. Emerman Co.
1760 Elston Ave.
CHICAGO, ILL.

Heavy Shears For Immediate Delivery

3—No. 2 Doelger & Kirsten steel alligator shears, 1 low knife, 2 high knives.
2—No. 18 Thos. Carlins shears—one with steel lever, capacity 2¼"x2¼".
1—No. 5 United Eng. & Fdry. Co., cap. 3¾" square.
1—No. 2 Thos. Carlins shear, cap. 5"x5".

All are belt driven from motors, 220 volt, 3 phase, 60 cycle.

OTHER MACHINES

Boring Mill	36" Niles, 2 heads, gear feeds, belt drive.
Drills	3' Cincinnati-Bickford Radial, gear box drive.
	36" Cincinnati-Bickford sliding head, tapping attach.
	20" Milwaukee, Barnes, Rockford, all B. G., (3).
Gear Cutter	72" Brown & Sharpe.
Grinders	Reid Surface, magnetic chuck.
	6"x32" Norton Plain, very fine condition.
	16"x96" Landis Plain.
	16"x48" Landis crank pin, self contained.
Lathes	20"x10' American geared head, G. C.
	18"x8' Lodge & Shipley geared head, G. C.
Milling Machines	No. 5 and 6 Becker vertical.
	No. 2 Cincinnati Univ., all feeds, div. head, etc.
	No. 1 Rockford Plain, 10" dividing head.
	No. 3 Kempsmith Plain, all power feeds.
	No. 3 LeBlond plain, vertical attachment.
	No. 3 Cincinnati vertical, High Power.
Pipe Machine	4" Saunders 1½" to 4".
Planers	30"x30"x8' Ohio Heavy Pattern.
	36"x36"x15' Betts, 2 heads, heavy pattern.
Presses	No. 3 American Can, inclinable, 2½" stroke.
	No. 126 Max Ams, inclinable, 2" stroke.
	No. 3 Stiles Solid back, 1½" stroke, (2).
Punch	Rock River, 10" throat arch jaw 1" in 1".
Screw Machines	No. 00 Brown & Sharpe Auto., Ser. 5802-5803, (2).
	⅜-½" Cleveland Auto., model A, (5).
	⅜-½" Cleveland Auto., model B, (2);
	No. 0 and No. 1 Brown & Sharpe, hand.
	No. 4 Milholland, hand, 1⅝" cap., (6).
	2¼" Gridley, Multiple, serial 9186.
Shapers	16" Smith & Mills, Back Geared.
	20" Rockford, Back Geared.
Shear	146" for 10 ga., Streine, N.E.W.
Turret Lathes	21" Libby, full swing, 4⅛" hole.
	21" Gisholt, late type, (2).

AND MANY OTHERS: The above are only representative
Send us your inquiries.

A. D. White Machinery Co.

108-114 N. Jefferson St., Chicago, Ill.

Lowest Prices On Record

Covered by Full Guarantee

LATHES

14"x6' Hendey geared head.
16"x6' Hendey, tool room, full equipt.
16"x8' Hendey geared head.
18"x6' Lodge & Shipley cone.
18"—36"x8' Putnam, gap.
18"x8' American cone.
20"x10' Reed Prentice cone, taper.
22"x12' Reed Prentice cone, taper.
24"x12' Reed Prentice geared head.
24"x14' Boye & Emmes cone, taper.
24"—36"x14' LeBlond, gap.
24"x16' Lodge & Shipley cone, taper.
24"x27' Flather cone (new)
26"x12' Boye & Emmes cone, q. c.
36"x24' Putnam, hvy. duty, triple grd.
30"x16' H. S. & C. cone.
30"—60"x16' LeBlond, gap.
36"x14' Putnam triple geared, cone.
48"x15' Niles cone.
No. 4 Warner & Swasey turret.
2x24 Jones & Lamson, s. pulley
3x36 Jones & Lamson, s. pulley.
3" Harkness, double spindle.
26" Libby, s. pulley.
6A Potter & Johnson, s. pulley.

DRILL PRESSES

3½' Bickford, single pulley.
4' Dreses Simplex, single pulley.
4' Western, s. pulley.
4' Dreses, s. pulley.
4' Dreses Universal.
36" Cin. Bick., tap. attach.
No. 30 Natco Multiple Spindle.

BORING MILLS

24" Bullard vertical turret.
34" King, turret head, cone.
42" Gisholt 2 swivel heads, motor.
42" Bullard 1 turret 1 swivel, motor.
52" N.-B.-P. 2 swivel heads motor.
76" Bullard 2 swivel heads, cone.
16' Niles 2 swivel heads, motor.

PLANERS

24"x24x6' Cincinnati, heavy.
42"x42"x10' Belmar, belt.
48"x48"x14' Patch belt.
60"x48"x14' Gray, belt.
60"x24"x14' Pond, belt.
60"x42"x16' Cincinnati.
60"x60"x16' Woodward & Powell.
60"x60"x20' Gray.

MILLING MACHINES

No. 1 LeBlond plain, cone.
No. 1 Milwaukee, plain, s. pulley.
No. 2 Milwaukee, plain, cone.
No. 3 Cincinnati High Power, plain.
No. 1B Milwaukee Univ., s. pulley.
No. 1½ Brown & Sharpe Univ. cone.
No. 2 Kempsmith Universal cone.
No. 2 Cincinnati, Universal, cone.
No. 3 Milwaukee Universal, cone.
No. 3A Brown & S. Univ., s. pulley.
No. 2 Brown & Sharpe Vert., s. pulley.
No. 3 Brown & Sharpe Vert., s. pulley.
No. 4 Cincinnati Vert., s. pulley.
30"x24"x12' N.-B.-P. Slab Miller.

GRINDERS

54" Springfield, boring mill type.
84" Diamond Surface Grinder.
10x36 Norton plain.
10x50 Norton, plain.
10"x60" Norton, plain.

MISCELLANEOUS

Bending Rolls, 12'x½" Niles.
Bolt Cutter, 2" Acme, 2-spindles.
Chucking Mche, No. 33 New Britain.
Gear Cutter, Spur, 48" Brown & S.
Pipe Machine, 6" Saunders.
Screw Mche., No. 52 National Acme.
Shaper, No. 20 Niles.
Shaper, 25" Smith & Mills.
Shear, Rotary, No. 510 Niagara.

L. J. HOY

Associated Machine Tool Co., Inc.

OFFICE AND WAREHOUSE——189 Seventh St., Brooklyn, N. Y.

Telephone, South 0717

ISN'T it an unusual opportunity to be able to buy modern machine tools, rebuilt and guaranteed by an old established firm (est. 1900) at sacrifice prices, lower than elsewhere?

TO Machinery Users who can act immediately we make this offer, in order to avoid the expense of moving our entire stock to another warehouse.

PARTIAL LIST

LATHES AND BORING MILLS

38"x16' Pond Lathe, 9'-6" centers.
26"x12' Putnam Lathe, Taper att.
25"x10' Crawford Lathe, Q. C. G.
22"x8' Davenport Lathe, H. P.
18"x8' Mueller Lathe, Q. C. G.
18"x8' Hollingsworth Lathe, Q. C. G.
18"x8' Cisco Geared Head, New.
16"x8' Schumacher B&E Lathe, T.A.
14"x8' Carroll-Jamieson Lathes, New.
14"x6' Carroll-Jamieson Lathes, New.
13"x21"x8' Star Gap Lathe.
28" Gisholt Turret Lathe, Belt Driven.
4" Niles Horizontal Boring Mill.
42" Bullard Vertical Boring Mills.
37" Baush Vertical Boring Mill.

MILLERS AND GRINDERS

No. 4 Cincinnati High Pwr. Pl. Miller
No. 3 Kempsmith Plain Miller.
No. 2½ LeBlond Plain Miller.
No. 2 Kempsmith Plain Miller.
No. 1 Cleveland Plain Miller, S. P. D.
No. 13 Garvin Plain Millers, (2).
No. 32 Kempsmith Mfg. Type Miller.
4"x30" P. & W. Cylindrical Grinder.

PLANERS

24"x24"x10' Chandler Planer.
36"x30"x16' Whitcomb-Blaisdell.

PNEUMATIC RIVETERS

Allen, 72" reach, 15" gap, 10" cyl.

RADIALS AND DRILL PRESSES

6' Bickford Plain Radial Drill.
4' American Sensitive Radials (3).
Barr 6-Spindle Sensitive Drill.
6 Spindle Gardam Multiple Drill.
No. 25 Foote-Burt Hvy. Duty Drill.
24" Weigel Sliding Head Drill.

HAMMERS—PUNCHES AND SHEARS

1100 lb. Bell Steam Forging Hammer.
1100 lb. N. B. P. Forging Hammer.
2000 lb. Bell Steam Forging Hammer.
600 lb. Miner & P. Drop Ham. (4).
200 lb. United Upright Pwr. Hammer.
200 Beaudry Upright Pwr. Hammer.
60 lb. Rochester Helve Hammer.
40 lb. Bradley Helve Hammer.
36" Cleveland Style EF Punch & S.
36" Ironton Punch & Shear, New.
Kling ¾" Rotary Splitting Shear.
Beloit Alligator Shears, capacity 1½" and 2" rounds.
Beloit Combined Punches and Shears, cap. ⅝"x⅝" and ¾"x¾".

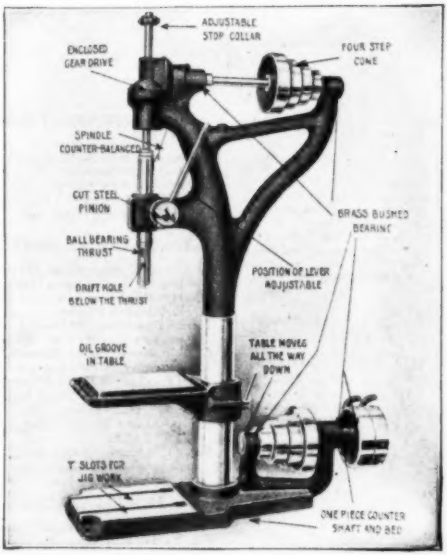
MISCELLANEOUS

24" Brown & Sharpe Gear Cutter.
No. 1 Davis Keyseater.
No. 3B LaPointe Broaching Machine.
12" Jarecki Pipe Machine 2½"-12".
3" and 6" Curtis & Curtis Pipe Mchs.

WICKES
MACHINERY CO.
46 to 64 Mallory Ave., Jersey City, N. J.

Bench Drills only $35

While They Last!



Inclosed Gear Drive—Raw Hide Pinion—Four Step Cone
Bronze Bushed Split Journals
Safe Working Speed 2,400 R. P. M.

FIRST COME—FIRST SERVED!

Passman Brothers

705 W. Washington Blvd., CHICAGO, ILL.

SIMMONS *New and Used* MACHINE TOOLS

ATTRACTIVE PRICES **MONEY BACK GUARANTEE**

TESTED BEFORE SHIPMENT

Drills

1—6′ Niles-Bement-Pond univ.
1—6′ Bickford universal radial.
2—8′ Western heavy duty.
1—4′ and 1—5′ Dreses Radials.
2—4′ Hammond plain.
1—5′ American trip. purpose radial.
1—5′ N.-B.-P. semi-universal.
2—3′ Mueller plain.
1—3′ Western plain.
1—No. 32 Natco, multiple spindle.
1—No. 14 Natco, multiple spindle.
1—No. 4 Baush multiple spindle.
6—No. 13 Pratt & W., mult. spdl.
1—No. 3 Baush multiple spindle.
1—No. 1 Pratt & W., deep hole.
3—42″ Cincinnati-Bickford, s. h.
2—32″ Aurora, s. h.
2—26″ Barnes, all-geared.
5—Four-spindle H. & W. b. b.
3—24″ Cincinnati, s. h., tapping.
1—No. 2 Foote-Burt.
1—3-spindle Allen, ball-bearing.
1—3-spindle H. & W., ball-bearing.
1—No. 1-S Garvin duplex.

Automatics

2—No. 2G Brown & Sharpe.
2—No. 0 Brown & Sharpe.
5—No. 00 Brown & Sharpe.
3—2½″ Gridley, 4-spindle.
6—9/16 Gridley, 4-spindle.
1—1″ Gridley, 4-spindle.
9—2½″ Gridley single spindle.
2—3½″ Gridley single spindle.
4—4½″ Gridley single spindle.
1—No. 6-A Potter & Johnston.

Grinders

2—No. 16 Blanchard vertical.
1—14x96 Norton cylindrical.
1—16x48 Landis crankshaft.
3—14x30″ Norton cylindrical.
6—6x32 Norton cylindrical.
1—14″ Pratt & Whitney vertical.
1—30x84 Diamond face.
2—16x52 Landis plain.
5—No. 70 Heald internal.
5—No. 65 Heald Grinders.
5—No. 60 Heald Grinders.

Boring Mills

6—24″ Bullard New Era.
1—36″ Bullard New Era.

Lathes

5—10x5 Pratt-Whitney tool room.
3—14x6 Hendey tool room.
6—16x6 Hendey tool room.
1—18x8 Hendey tool room.
2—18x8 Greaves-Klusman grd. hd.
1—18x8 Lodge-Shipley heavy duty.
1—18x36x12 Rahn-Larmon gap.
1—20x42x6 Fay Scott gap.
1—24x10 American geared head.
1—25x12 LeBlond heavy duty.
1—26x22 Boye-Emmes motor drive.
1—27x18 LeBlond heavy duty.
2—30x12 American geared head.
1—36x60x12 McCabe 2-in-1.
1—30x14 Lodge-Shipley cone drive.
1—30x20 Pond triple geared.
1—36x29 American geared head.
1—36x70 American geared head.
2—36x20 American geared head.
1—36x60 Bridgeford boring.
1—42x22 American geared head.
8—42x39 Putnam geared head.
1—44x34 Pond triple geared.
1—48x36 Pittsburg motor drive.
2—50x36 Pittsburg geared head.
2—54x34 Bement triple geared.
1—60x35 Bement triple geared.
1—72″x56′ N.-B.-P. triple geared.
1—LeBlond crankshaft.

Millers

1—No. 5 Cincinnati intermittent fd.
1—No. 5 Cincinnati h. p. plain.
1—No. 4 Cincinnati h. p. plain.
1—No. 4-G LeBlond plain.
1—No. 3 Cincinnati h. p. plain.
1—No. 3-H LeBlond plain.
1—No. 2 Hendey geared hd. plain.
1—No. 2—AS Milwaukee pl. new.
1—No. 1 Brown & Sharpe univ.
1—No. 1½ Brown & Sharpe univ.
1—No. 2 Kempsmith universal.
1—No. 5 Brown & Sharpe vertical.
1—No. 4 Cincinnati vertical.
1—No. 4 Cincinnati intermittent fd.
1—No. 3 Cincinnati vertical.
1—Nos. 20 and 22 Garvin vertical.
2—24x24x6′ Ingersoll.
1—48x33x20′ Ingersoll planer type.
1—No. 9-A Lees-Bradner thread.
1—No. 8 Lees-Bradner.

Write for "Simmons Pictorial News"

Simmons Machine Tool Corp.

NEW YORK 149 Broadway — **ALBANY** 1212 Troy Road — **BUFFALO** 88 Exchange St.

Machine Tools Worth While

LATHES

11"x4' Sidney.
12" Pratt & W., tool-room lathe.
3—12"x5' Hendey precision tool-room, T. A.
14"x6' Hendey precision, t. a.
14"x6' American.
14"x6' LeBlond.
14"x6' Monarch.
16"x6' Hendey.
16"x6' Sidney.
2—16"x7' Hendey precision tool-room, T. A. draw-bar, collets, relieving attachment, like new.
16"x8' Monarch.
18"x8' Hendey.
18"x6' Monarch.
20"x8' Monarch.
22—44"x10' Harrington gap.

MILLING MACHINES

No. 1½ Brown & Sharpe univ.
No. 2B Hendey universal.
No. 2½ LeBlond heavy universal.
No. 2 Cincinnati universal.
No. 2B Hendey plain.
2—No. 2 Cincinnati plain.
3—No. 3 Cincinnati cone plain.
2—No. 4 LeBlond cone plain.
3—No. 2 Kempsmith plain.
No. 3 Cincinnati a. g. vertical.
No. 6 Becker cone vertical.
No. B-1 Becker cone vertical.
2—Hendey duplex horizontal.

DRILLS

4—26" Barnes, b. g., p. f.
24" Rockford 4-spd.
22" Rockford 2-spd.
65-D-5 Moline holehog.
26" Barnes a. g. motor driven.
No. 17 Foote-Burt 5-spd. rail drill.
4' Mueller radial.
3' Bickford radial.
4-spindle Allen, H. S., B. B.
4-spindle H. & W., H. S., B. B.
4-spindle a. g. Barnes, 26".
6-spd. Allen h. s., b. b. drill.

PRESSES

4 No. P-4 Ferracute.
No. 409-B Bliss toggle press.
1—No. 84 Consolidated, horn press.
No. 93-B Toledo d. c. grd. press.
No. 68 Bliss d. a. press.
No. 24 Mich. grd. horning press.
No. 54½ Toledo s. s., s. c. press.
No. 55 Toledo s. s., s. c. press and many others of all sizes.

SHAPERS

1—16" Gould & Eberhardt cone.
1—16" Smith & Mills cone.
2—20" Gould & Eberhardt cone.
2—24" Gould & Eberhardt S. P. D. arranged for motor drive.
1—24" Kelly cone.
1—24" Sterling. S. P. D.
1—24" Smith & Mills, cone.

GRINDERS

6—No. 65 Heald cylinder.
3—6x32 Norton plain.
2—No. 2 Brown & Sharpe surface, magnetic chuck and generator.
No. 10 Brown & Sharpe plain.
No. 11 Brown & Sharpe plain.
1—No. 3 Wilamarth & Morman sur. magnetic chuck and generator.
12x36 Queen City plain.
6x36 Landis plain.
No. 2 Bath universal.
No. 2 Brown & Sharpe universal.
No. 3 Landis universal.
No. 15 Bryant internal.
No. 10 Bryant internal.
Worcester internal.
No. 6 Gardner disc.

MISCELLANEOUS

1—36" Detrick & Harvey openside planer, like new.
2—No. 2 W. & S. F. H. turret lathes
2—No. 4 W. & S. F. H. turret lathes
1—No. 6 W. & S. F. F. turret lathe.
1—No. 2-A W. & S. F. H. tur. lathe.
36" Bullard vertical boring mill, side head.
30"x30"x8' Wilson, planer.
36x36x12' Bickett planer.
4—No. 1 Garvin vertical tappers.
3—No. 2 Garvin vertical tappers.
10x10 Ingersoll-Rand air comp.
19x14 C. P. air compressor.
24x16 Bury air compressor.
1500 Lb. Chambersburg steam hammer.
2500 Lb. Chambersburg steam hammer.
7500 Lb. Chambersburg steam hammer
10" Allis Chalmers centr. pumps.
14x16x16 Burnham steam vacuum.

The above is only a partial list—over 3000 machines in stock to pick from. Send us your inquiries and get our detailed description covering.

Riverside Machinery Depot

251 St. Aubin Ave., Detroit, Mich.

NEW 3 PHASE MOTORS CHEAP. 3 H. P. $54.50; 5 H. P. $65.50

LATHES

12"x 5' Cleveland, geared head.
14"x 6' Carroll-Jamieson, new, q. c.
14"x 6' Hamilton, grd. hd., motor dr.
14"x 6' Monarch, quick change.
14"x 6' Sebastian, grd. hd., m. d.
14"x 8' Sidney, double back geared.
14"x 6' Hamilton, style B.
16"x 6' Monarch, motor drive.
18"x10' American, quick change.
20"x 8' American, geared head.
20"x10' Hamilton, rapid production.
20"x10' Prentice, taper attachment.
22"x8'6" Greaves & Klusman.
24"x12' Bradford.
24"x24' Prentice, with raising block.
8x60" & 3½x60" Fitchburg, Lo-Swing

TURRET LATHES and SCREW MACHINES

Acme ⅞" cap., wire feed column.
No. 4 Defiance, 1⅛" capacity.
1⅛" capacity Smurr & Kamen.
1⅛" Milholland.
2x24 and 3x36 J. & L.
No. 1 Foster, 15/16" capacity, (2).
Warner & Swasey No. 2.
No. 52 National Acme.
1⅛" 4-spindle Gridley.

SHAPERS

14" Niles, traveling head.
14" Steptoe, crank.
16" American tool room.
16" O. & S., b. grd., new, low price.
16" Cincinnati b. g., motor drive.
16" Harker back geared crank.
24" O. & S. back geared crank.
16" Steptoe, b. g.

PRESSES

No. 10 and No. 15 Excelsior, foot.
No. 6-I Cleveland, o. b. i.
Nos. 3-A & 5-A Willard inclinable.
Nos. 1½, 2, 2½ & 4 Robinson, new.
Emco, bench, for radio parts.

DRILLS and RADIALS

No. 1 Baush multiple.
Baush 10 spindle, arranged for 16.
Electric Drills, Black & Decker.
No. 4 Duntley electric.
22", 24", 26", 29" and 32", sliding hd.
6' Ceiling drill.
25" Kokomo high speed.
4-spindle Reed sensitive.
44" Stover.
Hole Hog, No. 66-D, 7-spindle.

MILLING MACHINES

No. 1 Kempsmith universal, new.
No. 2 Kempsmith plain.
No. 3 Kempsmith plain, new.
No. 3 Cincinnati universal.
No. 5-C Becker, vertical.
No. 25 Becker plain, power feed.
No. 2 H Brown & Sharpe plain.
Oesterlein 24x7½x18 plain.
Briggs "A" high duty, 24x8" table.
No. 7 Becker, Lincoln type.

GRINDERS

Nos. 1 & 78 W. & M. surface.
6"x15" Fitchburg plain.
12"x36" Cincinnati universal.
16"x42" Landis universal.
36" and 66" Yates plate.
No. 60 Heald cylinder.
Schmitt cylinder grinder.
J B X, W. & M. tool and cutter.
No. 10 Besly 18" double disc.
No. 20 Bryant, chucking.

MISCELLANEOUS

Band saw, Clark, compound.
Band saws, Napier 4"x4", 10"x10".
Blower, No. 6 Piqua, pressure.
Blower, positive pressure, Leiman style "F."
Boring mill, Colburn No. 3, tur. hd.
Boring mill, Sellers 50" car wheel.
Boring mill, 72" column.
Boring mill, vertical, two heads.
Brake, 10', 18-gauge metal.
Broaching mchs., 1 and 3 LaPointe.
Compressors, 6x8, 8x8 and 9x8.
Drawing tables, adjust., 42"x6' top.
Gear cutter, No. 3—26 B. & S.
Gear miller, Bilton No. 1.
Hammer, No. 1 Pettingell.
Hammer, 150 lb. Standard drop.
Pipe machines, 2", 4" & 6".
Pumps, Gould triplex, 6½x8".
Punch & shear, 2½x½x10" throat.
Riveting hammers, High Speed Nos. 2, 3, 4 & 5-A.
Scale, 1500 lb. Toledo, dial type.
Shear, 60" Peck, Stow & W., 18 ga.
Shear, No. 362 Robinson.
Shear, No. 20 Quickwork, 30" throat.
Shear, circular, Pettingell, 60" thrt.
Tapping machine, Acme 6-spindle.
Threading mche., W. & P. 2-spindle.

THE OSBORNE & SEXTON MACHINERY COMPANY
Dept. H.
COLUMBUS OHIO

Attractive Prices To Move Stock

BORING MILLS: Detrick Harvey Post Mill 4⅞" bar.
Niles Post Mill 4½" and 6½" bar.
30" King.
36" American ..... $350.
42" Bullard Vertical ..... 850.
64", 84", and 7' 10" Betts Vertical.

DRILLS: 20" Champion.
6" Drill.
24" Sibley B. G.
4' Western Radial, m. d.
8' Pond Radial.

LATHES: 16"x8' South Bend.
18"x10' Lodge & Shipley.
24"x10' Putnam, t. a.
24"x12' Reed, h. s.
24"x12' New Haven.
26"x16' Prentice, taper attachment.
24"x18' Lodge & Shipley, m. d.
36"x17' Gleason Triple Geared.
42"x16' New Haven triple geared.
48"x36' Niles Triple Geared.
24" Libby Turret.
Lewis Roll Lathes.

MILLING MCHES.: No. 1½B Milwaukee Vertical.
No. 2M Cincinnati and No. 2 Kempsmith Plain.
No. 7-H Becker, Lincoln type.

PUNCH & SHEAR: Canedy-Otto, hand power, ½"x½" ..... $ 45.
No. 5 Long & A., d. e., 10" throats, cap. ⅝" thru ⅝".
No. 45 Buffalo S. E. Punch & Shear.
Cleveland E. F., 36" throat.
No. 2 Hilles & Jones hor. punch, 8" throat.
Beatty s. e., 48" throat, capacity 1¼"x1¼".
Kling Bros. Dbl. Angle Shear, cap. 6"x6"x¾", m. d.

GRINDERS: No. 1 Wilmarth & Morman Surface.
No. 55 Heald Internal and No. 96 Ott Piston.
10"x96" Norton Grinder.
No. 5 Landis Cylinder.
Bridgeport Knife & Drill.

SHAPERS: 14", 24", 30" Gould & Eberhardt, b. g.
28" Ohio Double Geared.

MISCELLANEOUS: Blower, No. 2 Roots Rotary.
Crane, Brown 15-ton, 8-wheel locomotive.
Gear Cutter, No. 6 Brown & S., cap. up to 72"x13".
Motor, 50 h. p. Allis-Chalmers 3—60—220.
Planers, Cincinnati 48"x44"x12' and 60"x60"x20'.
Planer, Flather 48"x48"x16' heavy duty.
Planer, Cincinnati 42"x36"x12', 2 heads.
Planer, Pond 72"x18', 2 heads.
Planer, Detrick & H. Openside, 96"x72"x26'.
Riveters, Allen Portable Pneumatic; Nutcracker and Horseshoe 9", 25½" & 35" reach.

RUSSELL MACHINE COMPANY

1447 Oliver Building, PITTSBURGH, PA.

Forging, Bolt, Nut, Rivet and Structural Machinery

1", 1½" 2", 2½", 3", 4", 5" Ajax Upsetters.
¾", 1", 1¼", 2½", 3" and 4" Acme Upsetters.
1" and 2" National Upsetters, iron beds.
Nos. 2, 4, 5 and 7 Williams-White Bulldozers.
No. 2 Williams White Vert. Bulldozer, M. D. with motor, new.
No. 29U Williams White Bulldozer, M. D.
50, 75, 100, 150, 200 and 500 lb. Bradley Upright Hammers.
40, 60, 80, 100 and 200 lb. Bradley Cushioned Helve Hammers.
2000 lb. Erie Single Leg Steam Forging Hammer.
800 lb. Chambersburg board drop Hammer.
1300 lb. Miner & Peck, 6 poppet drop hammer.
No. 59¼S Toledo Trimming Press, geared, M. D.
No. 14 Erie Geared Trimming Press, wt. 22,000 lbs.
No. 52 Bliss straight side press.
No. 5 Stiles Single Geared Press, Motor Drive.
No. 2 Doelger-Kirsten Alligator Shear, m. d., cap. 3" round.
1", 1½" 3", 4" Single Spindle Landis Threading Machine.
½", 1", 1½", 2½", 2-spindle Landis Threading Machines.
1½", 2", 2-spindle Acme Class A Threading Machines.
½", 1", 1½" 6 & 8-spindle Vertical Semi-auto. Nut Tappers.
¼", ⅜", ½", ⅝" and 1" Thread Rollers.
11 Waterbury and Manville Cold Headers, 3/16" to 1".
Long & Allstatter Size B Dbl. End Punch, 18" thrt. each end, 2¼" thru 1½".
Rock River Sgl. End Punch, 16" thrt., arch. jaw, cap. ¾" thru ⅞".
Beatty Sgl. End Punch, 26" thrt., plain table, cap. 1" thru 1".
No. 6 Whiting Sgl. End Punch, arch. jaw, cap. ¾" thru ⅞".
Allen Pinch Bug Riveter, cap. ⅞" rivets.
Allen C Frame Riveter, 26" throat, 15½" gap, cap. 1" rivets.
Long & Allstatter No. 2 Horizontal Punch and Beam Bender.
No. 2 Ryerson high speed Friction Saw, cap. 18" beams.
No. 2 Ajax Hot Saw and Burring Machine.
12' Wall Radial Drill for structural work.
Wagenhorst Blueprinting Machine.
Detroit 5-spindle Semi-automatic Drills.
Baker, R. & L. & Elwell-Parker Elec. Elevating Platform Trucks.
100,000 lb. Tinius Olsen Testing Machine.

Donahue Steel Products Co.

Specialists in Forging, Bolt, Nut and Rivet Machinery

74th and Ashland Ave., Chicago, Ill.

LOOK—THESE—OVER

LATHES

13" x8' Willard q. c. t. att.
16"x10' Cincinnati, q. c.
16"x 6' Hendey, q. c. g.
18"x 8' Bradford, q. c g.
18"x 8' Reed-Prentice grd. hd.
17"x 8' National, q. c. g.
24"x12' LeBlond q. c. g.
38"x28' American, geared head.
28"x14' American, l, c. g.
36"x20' Bradford triple gear.

No. 0 Giddings & Louis Horizontal boring mill, 3⅛" bar, arranged for motor drive, inc. A. C. motor

RADIALS AND DRILL PRESSES

3' Carlton, G type, gear box.
3½' Fosdick, s. p. drive.
4' Dreses m. d. thru. gear box
6' Dreses, motor drive.
20" Barnes Sta. Head, b. g. p. f.
24" Cincinnati Sil. Hd. b g p. f.
24" Aurora, sliding head b. g. p. f.
2 spindle Allen, b. b. sensitive.

PUNCH PRESSES

No. C-2 Ferracute o. b. inc.
No. 18 Bliss, o. b. inclinable. (4).
No. 2½ Consolidated, o. b. inc.
No. 3-A Willard, o. b. inc.
No. 5 Toledo o. b. inclinable.
No. 5 Beauroth o. b. i., geared.
No. 3 Bliss, stiff back.
No. 31 Toledo, stiff back.
No. 17 Williams & White, 24" thr.
No. 18 Long & Allstatter, 18" thr.
No. 6 Whiting, single end, 12" thrt.
No. 4-P. G. Ferracute press.
No. 6 Waterbury-Farrel, stiff back.
No. 64 Consolidated s. s., 18" bet.
No 13A—62" Beloit bending rolls, ½" capacity.

PLANERS AND SHAPERS

24"x 6' Powell, 1 head.
30"x 8' Cincinnati, 1 head.
30"x12' Cincinnati, 2 heads.
48"x36"x12' Cincinnati, 2 heads.
24" Kelley shaper, b. g.
20" American b. g. shaper.
16" Smith & Mills, cone drive.
16" Gould & Eberhardt shaper.
15" Potter & Johnston, s. p. d.
15" Smith & Mills, cone drive.

GRINDERS

No. 3 Wilmarth & Marmon surface.
8"x48" Thompson surface m. d.
No. 1 Norton tool and cutter gr.
No. 2 Ohio tool & cutter grinder.
No. 60 Heald, long table. (2).
No. 60 Heald, short table. (2).
No. 23 Landis, 16x42".
16x66 Queen City plain.

MISCELLANEOUS

Bending rolls, 48" Niagara.
Bolt cutters, 2", 1½" & 1" Acme.
Boring mill, 30" Bullard, cone drive, turret head.
Boring mill, 36" Gisholt turret head, cone drive.
Boring mill, 42" Bullard vertical.
Boring mill, Fosdick 3" horizontal.
Boring mill, 16' Niles, 2 heads.
Chain hoists, various sizes.
Gas furnaces.
15" Gleason gear generator.
Gear cutter, No. 13 B. & S., spur & bevel.
Hammer, steam, 800 lb. Niles.
Keyseater, No. 1 Baker.
Millers, hand, (6).
Presses, 30 & 50 ton Lucas forcing.
Press, 44" Wood hydraulic tire press.
Shear, 60" power square, 14 gauge.
Slotter, 10" Niles vertical.
Tooth rounder, 12" Ingle.
Turret lathe, No. 2 W. & S. (2).

Send for Stock List No. 21

We Buy Modern Machine Tools—What Have You?

The Jones Machine Tool Co.

Front & Pike Sts., Cincinnati, Ohio

Entire Plant Equipment At Our Ridgway Works

Many Modern Machines

All Motor Driven Equipment 220 Volt, D. C.

Communicate with our nearest office for prices.

Lathes

13"x5' Blount Speed Lathe, Belt.
18"x8' LeBlond, motor.
21"x22' LeBlond, motor.
26"x17' Pond, motor.
28"x30" Pond, motor.
30"x45' Pond, motor.
36"x18' Pond, motor.
42"x17' Pond, motor.
54"x28' American, motor.

Turret Lathes

2"x26" P. & W., motor.
3"x36" P. & W., belt.
34" Gisholt, motor.

Planers

30"x30"x12' Pond, 4 hds. rev. m. d.
42"x42"x26' Pond, 4 hds. rev. m. d.
48"x48"x20' Pond, 4 hds. rev. m. d.
48"x48"x27' Pond, 4 hds. rev. m. d.
72"x72"x36' Pond, 4 hds. rev. m. d.
96"x72"x25' Pond, 4 hds. rev. m. d.
144"x120"x25' Pond, 4 hds. rev. m. d.
10'x10'x34' Betts, 4 hds. belted m. d.

Upright and Radial Drills

20" Barnes sta. hd. plain, belt.
No. 1 Bement Vert. Cotter, Belt.
No. 2 Bement Horiz. Cotter, Belt.
37" G. & E., motor.
5' Right Line Full Universal motor.
6' Ridgway Plain, motor.

Millers

Whitney Hand, belt.
No. 24 B. & S. Plain, belt.
No. 3-H LeBlond Universal, belt.
No. 4 Cincinnati Universal, motor.
No. 6 Becker-Brainerd Vertical, belt.
6"x132" P. & W. Thrd. Miller, Belt.

Emery Wheel Stands

No. 6 Blount Grinder, Belt.
12" Ransom, 2 H. P. motor.
24"x4" Ransom, 5 H. P. motor.
18" Grinder and Polisher, belt.
30" Grindstone Frame, belt.

Shapers and Slotters

20" Bement sgl. hd. Shaper, motor.
15" Bement Slotter, motor.
22" Bement Slotter, motor.

Grinders—Cylindrical and Tool

P. & W. Thread Mill Cutter, belt.
LeBlond No. 1 Cutter, belt.
No. 3 B. & S. Cutter, belt.
No. 2 Sellers Tool, belt.
No. 3 B. & S. Universal, belt.
18"x95" Norton Plain, belt.

Gear Cutters

24" Gleason Bevel Planer, belt.
36" No. 4 B. & S. Spur Cutter, belt.
64"x20" G. & E. Spur, belt.

Horizontal and Vertical Boring Mills

3½" Sp. Ridgway Hor., motor.
4½" Spindle Bement Hor., motor.
5" Sp. Betts Horiz., belt.
5½" Sp. 80" Bement Horiz., belt.

Miscellaneous

Bement 1100 Lbs. S. F. Stm. Hammer.
48" 200-ton Niles Hyd. Wheel Press, belt.
4" capacity Espen-Lucas Cold Saw
American No. 4 Oven Furnace.

Foundry Equipment

7'x14' Norcross Jolting Mach.
20" Norcross Jarring Mach.
14"x16" Mumford Molding Mach.
24"x24" Tabor Molding Mach.
Sellers Centrifugal Sand Mixer, Belt.
Whiting No. 40, 36x53" Tumbler, Belt.
20-Ton Std. Worm Gear Ladle.
7'x12'x¼" Air Tank.
Nos. 6 and 8½ Whiting Cupolas.
DA-2 Wilson Elec. Welder, Motor.

Niles 75-Ton 4-Motor Electric Traveling Crane, 49' span, with 10-Ton Aux. Hoist, 3-60-440 A. C. Motors, practically new, located at La Salle, Ill.

Also Woodworking and Power Plant Equipment

The Niles Tool Works Company

Division Niles-Bement-Pond Company

Hamilton, Ohio

New York, Birmingham, Boston, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, 454 E. Third St. Philadelphia, Pittsburgh Rochester, St. Louis, San Francisco, 917 Howard St.

Buy from the World's Largest Stock. All Guaranteed. All in First Class operating condition. All

BARGAINS

LATHES

1—56"-64"x18' Johnson.
1—36"x30' Pittsburgh Geared Hd.
1—30"-34"x12 L. & S. Sel. Hd.
1—26"x16' Bridgeford.
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1—24"x10' American.
2—21"x10' LeBlond.
1—20"x 8' LeBlond.
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3—No. 3 Brown & Sharpe Vert.
1—No. 2B Milwaukee Vertical.
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1—No. 2 Rockford, s. p. d.
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1—No. 4 1½" Bardons & Oliver.
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6—2" Bar Rockford.

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2—No. 14 Natco.
1—28" Rockford.
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The Beal Bulletin

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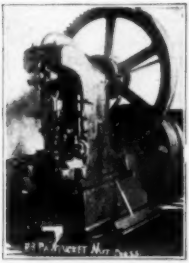

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Lathe, Pratt & Whitney 11"x5'.
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One No. 3 Cincinnati plain miller, S. P. D.
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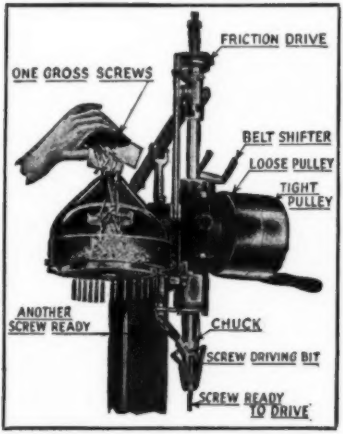

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The Reynolds Machine Company

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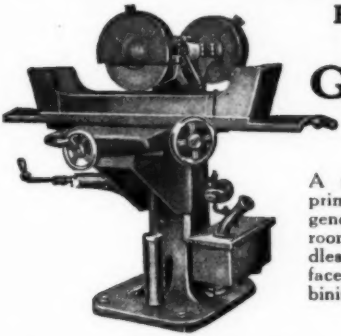

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Formerly of La Salle, Ill.

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AWAY WITH DUST!

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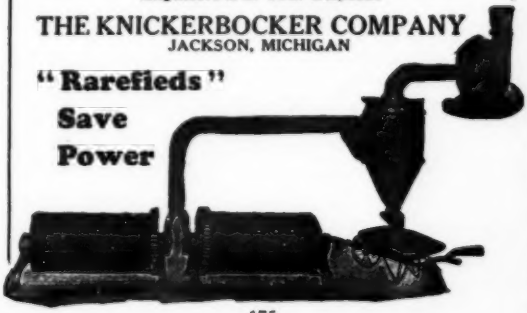

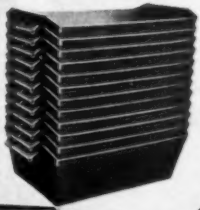

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